WATER LANE: A LIVEABLE WATERSIDE COMMUNITY

LAND AT WATER LANE, EXETER

SUSTAINABILITY STATEMENT

3ADAPT

People focused. Data informed.

August 2023

REVISION	DESCRIPTION	ISSUED BY	DATE	CHECKED
0	Outline Planning Application Issue	HL	10th August 2023	AD

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Author Harriet Lord

Date **10th August 2023**

EXECUTIVE SUMMARY

This sustainability statement has been developed to support the outline planning application (OPA) for the proposed Water Lane development. This statement describes the sustainability aspirations and strategies for the design, construction and operation of the scheme, including the legislative requirements for the site and stakeholders involved.

The Water Lane Development Management Company (WLDMC) and wider project team have employed a 'Five Capitals' approach to deliver sustainable development and inform the proposed strategies for the Water Lane development. This approach provides a strong model of sustainability which places an emphasis on living within the limits of the natural environment and developing strategies that grow all capitals; natural, social, human, manufactured and financial. The objective is to improve value through the 'Five Capitals' and deliver benefits to Water Lane, its occupants and wider stakeholders.

The OPA is seeking permission for circa 900 to 980 homes and 390,000 to 430,000 sqft of other accommodation (use classes C3 , Suis Generis, C1, E & F) leading to the creation of homes in the centre of Exeter city, a significant number of new jobs and a boosted local economy. A sustainability strategy and delivery framework have been developed using the 'Five Capitals' approach with objectives, key performance indicators (KPIs) and targets where appropriate to support the scheme design and the OPA. This has enabled the project team to develop strategies to address the key drivers, such as the relevant Exeter City Council (ECC) planning policies, and target high development standards across each of the Five Capitals for holistic sustainability performance.

This sustainability statement is structured under a number of themes, and summarises how the sustainability aspirations will be delivered by a series of strategies to address key environmental, social and economic issues and ECC's planning policies. Under each theme is a summary of the main planning policies and objectives, a list of KPIs and performance targets as well as an overview of the proposed strategies employed to address these as part of this OPA. Due to the outline nature of this application, all strategies proposed within this statement are to be further explored and developed during the next design stages with details confirmed within the Reserved Matters application(s).

In alignment with the ECC Adopted Core Strategy (2012-2026) policy CP15 'Sustainable Construction', the development is targeting to meet a BREEAM 'Excellent' standard. At this stage, in the absence of detailed design, a viable pathway to an 'Excellent' standard has been developed with the project team, which will also be confirmed within the Reserved Matters application(s).

This document draws on aspects of the Planning, Design and Access Statement (PDAS) and other technical planning reports and should be read in conjunction with these documents. An overview of the key sustainability strategies for the Water Lane development are provided in the diagram below.

Key sustainability strategies for the Water Lane development mapped across the indicative masterplan. The colours indicate the Five Capitals to which the strategies relate (see Figure 2).

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2 INTRODUCTION

This sustainability statement has been developed to support the outline planning application (OPA) for the proposed development site located off Water Lane, adjacent to the Exeter Canal, Exeter city centre. The site is located within the local authority of Exeter City Council (ECC). This statement describes the sustainability aspirations and strategies for the design, construction and operation of the scheme, including the legislative requirements for the site and stakeholders involved. It is structured under a number of themes, using the 'Five Capitals' approach for sustainability, and summarises how the sustainability aspirations will be delivered by a series of strategies to address key planning policies and environmental, social and economic issues.

The sustainability statement addresses the areas of the ECC Local Information Requirements that are required to be submitted as part of any planning application and the key policies in various sections of the Local Plan. This also includes where aspects will be addressed further during the next stages and submitted as part of the Reserved Matters application(s). This document draws on aspects of the Planning, Design and Access Statement (PDAS) and other technical reports and should be read in conjunction with these documents. The document is structured as follows:

- ***The Development***: Description of current site, proposed development, vision and sustainability strategy and framework themes, objectives, KPIs and targets and stakeholder mapping.
- ***Regulatory and Policy Context***: Summary of review of key regulation and local policy relevant to the development.
- ***Each Theme of The Sustainability Statement***: Summary of the key drivers and overarching proposed strategy for each theme aligned with the level of design completed for the OPA, covering: 'Nature & Biodiversity', 'Energy & Carbon', 'Materials & Waste', 'Water Resources', 'Community Connectivity', 'Quality, Accessible & Safe Places', 'Skills & Jobs', 'Health & Wellbeing', 'Resilient Assets', 'Sustainable Transport & Mobility' and 'Local Economic Growth'.
- ***BREEAM Pre-Assessment:*** A summary of the initial BREEAM pre-assessment is provided for the Water Lane development, with the supporting report included in the Appendix.

3 THE DEVELOPMENT

3.1 Existing Site

The application site is located adjacent to the Exeter Ship Canal just south of The Quay, Exeter city centre, between Water Lane and the Great Western mainline railway. The site is approximately 6.38Ha/15.8Acres and currently in use for industrial, storage and related commercial purposes. The site comprises industrial style sheds many of which are in poor condition, and open storage.

To the south west of the site on the other side of the railway line, is Marsh Barton, a large industrial area. To the north of the site is Haven Banks and to the east and south east of the site is the Exeter Canal and the Riverside Valley Park that sits between the canal and the River Exe, an area of green open space and stretches of woodland.

Public access to the site consists of vehicular access via Water Lane (and Haven Banks running from Exeter Quay along the canal providing access to the wider Water Lane area), and there is good pedestrian and cycle access along the canal adjacent to the site, with access to this route directly off Water Lane. However, constraints such as the lack of footways along Water Lane as it approaches the Tan Lane junction, and the narrowing of the carriageway width to the east of the Water Lane junction with Tan Lane, present the Water Lane development with the opportunity to improve access, particularly pedestrian and cycle access.

The site is designated under the ECC Adopted Core Strategy (2012-2026) as a Strategic development site under policy CP17, and The Exeter Plan (Outline Draft Plan September 2022) under 'H2' allocated for Housing, identified as a large scale brownfield development site for mixed-use redevelopment, as well as being an identified Local Energy Network area.

Figure 1: Application Site Plan taken from the accompanying Planning, Design, & Access Statement (PDAS)

3.2 The Development

The Water Lane development site is located within a Housing allocated area, identified as a large scale brownfield development site for mixed-use redevelopment, and an identified Local Energy Network area. The ECC Adopted Core Strategy (2012-2026), and The Exeter Plan (Outline Draft Plan September 2022), therefore recognises the importance of providing major developments within the area, which will deliver essential housing and enable local and sub-regional economic growth.

The OPA is seeking permission for circa 900 to 980 homes and 390,000 to 430,000 sqft of other accommodation (use classes C3 Suis Generis, C1, E & F) leading to the creation of homes in the centre of Exeter city, a significant number of new jobs and a boosted local economy. The indicative masterplan and description of the proposed development is included within the accompanying PDAS, covering the provision of mixed-use development blocks, predominantly commercial uses on ground floors with residential uses above. The application is made in outline with all matters reserved except access.

3.3 Stakeholder Mapping

The key stakeholders of the Water Lane development can broadly be described under three categories: the local community and users of the development, the legislative authorities and the client (WLDMC). Table 1 illustrates the key stakeholders and their drivers. The purpose is to identify where stakeholder aspirations overlap and complement each other, and inform the consultation strategy, an overview of which is provided below. Ways in which multiple stakeholder aspirations can be met will continue to be explored in further detail during the next design stages.

STAKEHOLDERS		DRIVERS	
 CLIENT	Water Lane Development Management Company (WLDMC)	• Project Brief and Requirements	Deliver Sustainable development with demonstrable economic, social and environmental benefit
 LEGISLATIVE AUTHORITIES	Building Regulations	• Part L 1A • Part L 2A	Deliver construction which minimises the consumption of fuel and power in new buildings
	Exeter City Council (ECC)	• Local Plan • Supplementary Planning Documents	Sustainable development and addressing the climate emergency
 COMMUNITY & USERS	Local Community & Businesses	• Transport, Mobility & Access • Architectural • Social Value • Safety/Security • Comfort, Health & Wellbeing • Quality • Land use • Consultation Structure • Maintenance/Management • Environmental	Maintain and enhance the vitality of Exeter city and surrounding local areas.

Table 1: Water Lane Stakeholders

3.4 Vision, Principles, Themes, Objectives, KPIs and Targets

3.4.1 The Team

This Sustainability Statement has been prepared by 3ADAPT for the client, 'Water Lane Development Management Company' (WLDMC) and Cilldara (Exeter) Ltd. The project team includes:

- Nash Partnership: Placemaking and planning consultancy.
- David Hawes (DHUD): Urban Design/Toolkit for Future Placemaking in Exeter.
- Greenhalgh Landscape Architecture: Landscape and public realm design.
- Stantec: Transport, utilities, energy, acoustics, air quality, flood risk and drainage.
- G&J Geoenvironmental Consultants: Ground conditions.
- Oakford Archaeology: Heritage.
- Inform Consulting Engineers: Lighting.
- Richard Green Ecology: Providing ecology advice.
- Ruskin Tree Consultancy.
- KOR: Leading the community and stakeholder engagement strategy.

3.4.2 Vision and Placemaking Principles

The Vision for Water Lane has been informed by the site context and key drivers such as the Liveable Exeter delivery principles and The Toolkit for Future Placemaking in Exeter, and developed further following two review sessions with the Exeter Design Quality Partnership and public engagement exercises in June 2022 and March 2023. This process developed the following Vision: '*a liveable, waterside community, within a distinctive new city quarter of character and identity, well connected to and integrated with its surroundings, that is a place people enjoy being in for living, working and community life and, which helps to protect and enhance the natural world*'.

A set of Placemaking Principles were then developed for Water Lane that align to this Vision and key drivers, to help guide the design process to ensure the development proposal achieves this Vision. A comprehensive overview of these Placemaking Principles is provided in the Planning, Design & Access Statement (PDAS) however the Principle headings are as follows: Water Lane will: '*Be Inclusive', 'Enable Low Impact Living', 'Prioritise People in its Spaces, Streets and Connections', 'Provide Homes for a Variety of Needs and Aspirations', 'Have a Thriving Community Life', 'Create Character and Identity', 'Add to and Complement Exeter's Form and Existing Neighbourhoods',* and *'Be Deliverable*'.

3.4.3 Informed Approach for Sustainability

To structure and frame the Water Lane development's sustainability strategy, the 'Five Capitals' approach has been adopted, as it provides a strong model of sustainability which places an emphasis on living within the limits of the natural environment and developing strategies that grow all capitals.

This approach aligns with the Water Lane Vision and has been used to help inform the themes and objectives for the Water Lane development, to maximise the value delivered while keeping within the limits of the natural environment. Through aligning the five capitals with the Water Lane Vision and site context, strategies can then be developed to grow all capitals, producing truly sustainable development that continuously delivers an ongoing flow of positive benefits. A brief description of each of these five capitals is provided in Figure 2, below.

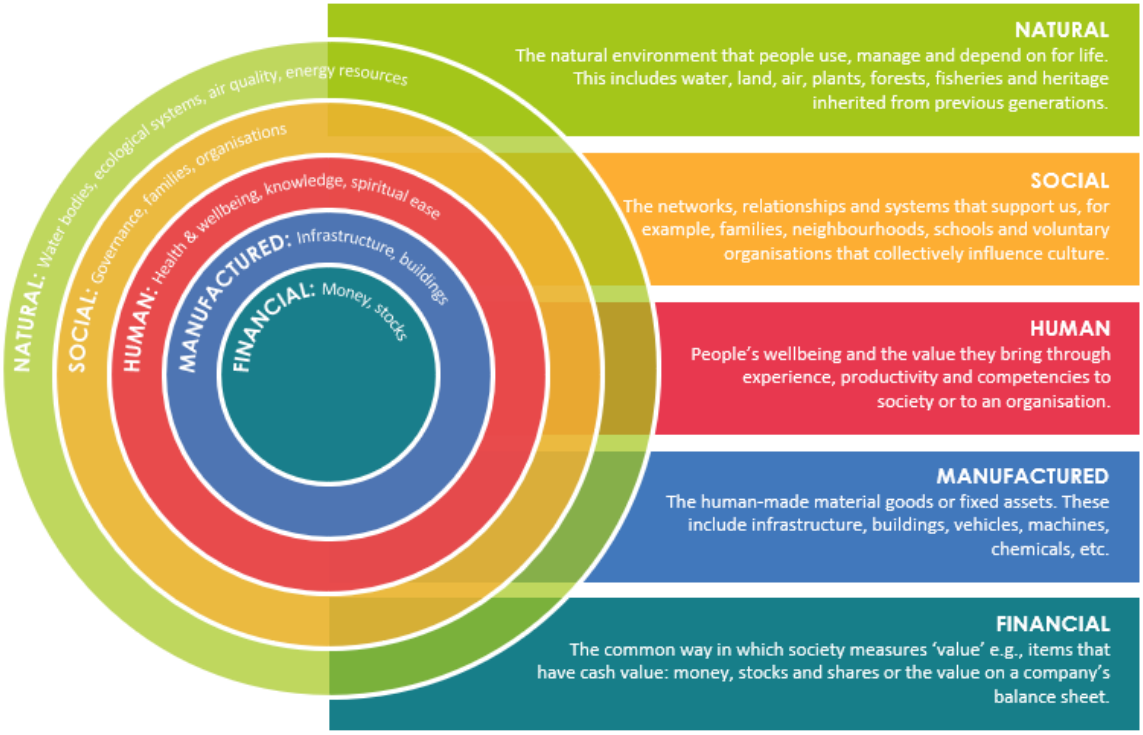


Figure 2: Overview of the 'Five Capitals' approach

The Water Lane development can deliver up to circa 980 new homes and 430,000 sqft of other accommodation on a currently under-utilised site that is recognised within ECC's Adopted Core Strategy (2012-2026) and The Exeter Plan (Outline Draft Plan September 2022). The development will strongly deliver against the Framework for the area particularly delivering a sustainable, mixed-use regenerated area, providing homes, green and open space, leisure and employment opportunities for local communities.

A sustainability strategy and delivery framework have been developed to translate the project Vision and Placemaking Principles into themes using the 'Five Capitals' approach along with objectives, key performance indicators (KPIs) and targets where appropriate for the Water Lane development as part of the OPA.

The KPIs and targets have been drawn from national to local best practice studies and standards, national to ECC Local Plan policy, and ESG and sustainability benchmarking systems such as BREEAM.

This has enabled the project team to develop strategies to address the key drivers, such as ECC Local Plan policies, and target high development standards across each of the natural, social, human, manufactured and financial capitals. These cover aspects such as nature and biodiversity, energy consumption, carbon dioxide (CO_2) emissions, material use and waste management, water consumption, community connectivity, quality, accessible and safe places, skills and jobs, health and wellbeing, resilient assets, sustainable transport and mobility, and local economic growth.

This sustainability statement provides detail structured under key themes covering the main ECC Local Plan policies addressed, the project objectives, a list of KPIs, targets and an overview of the proposed strategies employed to address these as part of this OPA. This also includes where aspects will be addressed further during the next stages and submitted as part of the Reserved Matters application(s). The sustainability

statement draws on aspects of the PDAS and other technical planning reports and should be read in conjunction with these documents.

The diagram below shows how the Water Lane sustainability strategy and delivery framework approach has informed the themes of this sustainability statement.

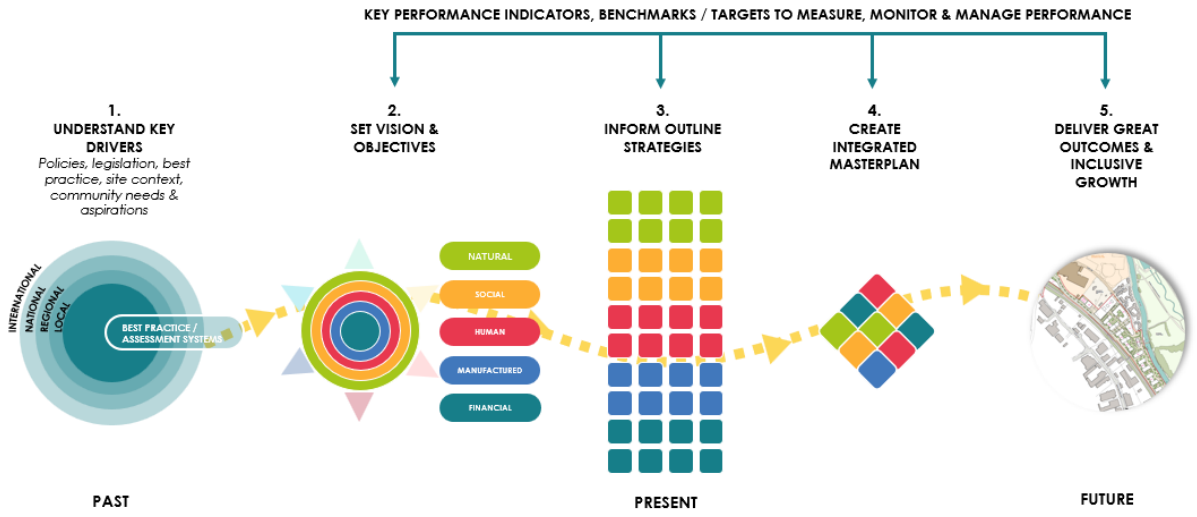


Figure 3: Water Lane's Five Capitals approach to inform the themes of this sustainability statement and delivery of great outcomes

3.4.4 Sustainability Strategy and Delivery Framework Themes, Objectives, KPIs and Targets

Table 2 below provides a summary of the Water Lane sustainability strategy and delivery framework objectives for each theme. These are at the core of the Water Lane development and underpin the technical work which has been carried out ahead of the OPA. The KPIs and targets are included under each theme within the next section of this sustainability statement.

The Water Lane Placemaking Principles that align with each theme are also mapped below (covered in more detail in the PDAS), to demonstrate the achievement of each Principle through the sustainability strategy and framework themes and objectives, and KPI's and targets under each.

Table 2 Sustainability Strategy and Delivery Framework Themes and Objectives

	THEME	ALIGNING WATER LANE PLACEMAKING PRINCIPLE
	NATURE & BIODIVERSITY **Objective:** Maximise biodiversity across the development by integrating with surrounding habitats, increasing the natural capital and ecological value of the site.	Low Impact Living
	ENERGY & CARBON EMISSIONS **Objective:** Minimise energy consumption and carbon emissions from the development through employing a hierarchical approach to energy, reducing the electricity required from the Grid and	Low Impact Living

	THEME	ALIGNING WATER LANE PLACEMAKING PRINCIPLE
	addressing fuel poverty, and pursuing a Pathway to Net Zero Carbon.	
	**MATERIALS & WASTE MANAGEMENT** **Objective:** Promote sustainable material use and minimise waste generated during construction and operation.	Low Impact Living
	**WATER RESOURCES** **Objective:** Maximise water efficiency across the site through reducing consumption and exploring alternative sources where possible.	Low Impact Living
	**COMMUNITY CONNECTIVITY** **Objective:** Encourage community connectivity and engagement by creating public spaces designed for play, recreation, social interaction and rest.	Homes for a Variety of Needs and Aspirations; Community Life
	**QUALITY, ACCESSIBLE & SAFE PLACES** **Objective:** Provide an accessible, safe and inclusive development through a holistic approach to design.	A Liveable Waterside Quarter; Critical Mass and City Composition
	**SKILLS & JOBS** **Objective:** Provide training, employment and job opportunities for all through the project lifecycle and create inspirational places and spaces designed to retain Exeter's talented workforce and graduates.	Inclusion
	**HEALTH & WELLBEING** **Objective:** Embrace active design and promote high quality environments to support and encourage mindfulness, recreation, sport and exercise.	Connections, Streets and Spaces for People
	**RESILIENT ASSETS** **Objective:** Adopt adaptive design approaches and design for the future climate to support long-term resilience of buildings and infrastructure.	Low Impact Living; Character and Identity
	**SUSTAINABLE TRANSPORT & MOBILITY** **Objective:** Promote sustainable transport and mobility options for residents, workers and visitors.	Connections, Streets and Spaces for People; Low Impact Living
	**LOCAL ECONOMIC GROWTH** **Objective:** Deliver local economic growth through local investment and job creation, during both construction and operation.	Deliverability

4 REGULATORY AND POLICY CONTEXT

The Water Lane development can contribute to delivering ECC Local Plan strategic and policy objectives, helping to secure a sustainable future. Further to a review, this section outlines the main regulatory and planning policy requirements regarding sustainable development that are applicable to the proposed Water Lane development site that must be met in order to be considered suitable for planning permission.

4.1 National policy

4.1.1 National planning policy framework

The National Planning Policy Framework (NPPF, 2021) sets out planning policies for England and is a key part of the Government's reform of the planning system, which seeks to make planning more accessible.

It is supplemented by national Planning Practice Guidance (PPG) and together these provide a framework of economic, environmental and social planning policies, setting out what sustainable development means in practice and how the planning system can contribute to its achievement.

4.1.2 The Building Regulations Approved Document Part L, Current Requirements: Part L 2021 Edition Incorporating 2023 Amendments

Part L of the Building Regulations is the mechanism by which government is driving reductions in the regulated CO_2 emissions from new buildings. Nationally, new buildings are currently required to comply with the 2021 edition of Part L of the Building Regulations 2010, incorporating February 2023 amendments. This covers limiting heat gains and losses, air permeability and pressure testing requirements, minimum building fabric performance standards and minimum building services efficiencies.

In order for Water Lane to comply with Part L1A (for new domestic buildings) and L2A (for new non-domestic buildings) regulations, energy modelling is required to be performed, for example, to establish the Target Primary Energy Rate (kWh/m^2 per year) and demonstrate that the predicted carbon dioxide emissions of dwellings and non-domestic buildings (DER and BER, Dwelling and Building CO_2 Emission Rate respectively) of the development proposals are below the established Target Emissions Rate (TER), as defined by the established methodology.

4.1.3 Climate Change Act 2008 (2050 Target Amendment) Order 2019

This legislation requires the government to reduce the UK's net emissions of greenhouse gases by 100% relative to 1990 levels by 2050. This was the first Net Zero commitment by a major economy and represented a significant amendment to the previous policy of 80% within the same timeframe.

This legislation is now a key driver behind policy proposals across all areas of government, and it will require equally significant efforts from the private sector.

4.2 Local Policy

The Adopted Local Plan for Exeter is the ECC Adopted Core Strategy (CS) which covers the period 2012-2026, as well as some saved policies from the Local Plan First Review 1995-2011 (LPFR). A new Local Plan named The Exeter Plan (TEP) is currently in draft and an Outline Draft Plan was published for consultation in September

2022. A number of Supplementary Planning Documents (SPDs) also further articulate Exeter's development plan policies.

The ECC Local Plan documents are summarised as follows:

- The ECC Core Strategy (2012-2026) was adopted in February 2012, and this set outs the spatial strategy for the whole city to guide future development in the city in the period up to 2026. This document sets-out the strategic policies and the required new infrastructure to make it happen.
- The Outline Draft Exeter Plan was published for its first consultation in September 2022 and the next consultation will take place in 2024. The Plan is strongly aligned to the Liveable Exeter Principles, developed by ECC's Liveable Exeter initiative which has a vision to create 12,000 new homes in Exeter from 2020-2040, while expanding the city's green setting. The initiative also highlights the transport challenges Exeter is facing and the need to create communities based largely on active travel rather than by private car. The Outline Draft Exeter Plan clearly sets out the Water Lane land allocation and intended use of the site under policy H2, identified as a strategic housing allocation and large-scale mixed-use site, to respond to local housing need and promote development and growth.

Other documents, such as Supplementary Planning Documents, usually provide more detailed guidance on specific topics.

4.3 BREEAM

The Building Research Establishment Environmental Assessment Method (BREEAM) is a nationally recognised independent method for evaluating the sustainability of new development. It considers many aspects of sustainable design including water, materials, pollution and energy, with a view to encourage continuous improvement in sustainable building techniques. Each issue is assessed against performance targets and benchmarks to contribute towards an overall percentage score which rates the development as 'Good', 'Very Good', 'Excellent' or 'Outstanding'. For each rating there are a number of mandatory criteria which need to be achieved, increasing in number as the rating rises. BREEAM is used by most local planning authorities as a proxy for sustainable building, and most planning policies stipulate a required rating that must be achieved.

In line with the ECC Core Strategy (2012-2026) policy CP15 'Sustainable Construction', the Council has stated that '*All development must be resilient to climate change (particularly summer overheating) and optimise energy and water efficiency through appropriate design, insulation, layout, orientation, landscaping and materials, and by using technologies that reduce carbon emissions*', and '*All non-domestic development will be required to achieve BREEAM 'Excellent' standards' from 2013*. An overview of the Water Lane development's BREEAM pre-assessment is provided in section 16 of this sustainability statement, with the report and full tracker included within the Appendix.

5 NATURE & BIODIVERSITY

This section describes the proposed 'Nature & Biodiversity' strategy for the Water Lane development to pursue the objective to *'Maximise biodiversity across the development by integrating with surrounding habitats, increasing the natural capital and ecological value of the site'*.

5.1 Key Requirements

The 'Nature & Biodiversity' strategy will seek to meet national and ECC local planning policies as well as the targeted level of performance within the Water Lane delivery framework Key Performance Indicators (KPIs). These are summarised below.

Table 3 'Biodiversity' planning policies

DRIVER	POLICY/STRATEGY/TARGET REQUIREMENT
The National Planning Policy Framework	Making effective use of land
	Conserving and enhancing the natural environment
	Achieving sustainable development
ECC Adopted Core Strategy	**CS Policy CP16** Green infrastructure and biodiversity
	LPFR Policy DG1 Design requirements
	Trees and Development SPD
The Exeter Plan – Outline Draft Plan	**TEP Policy S2, Principle 6** Spaces for people and wildlife
	TEP Policy NE1 Landscape setting areas
	TEP Policy NE3 Biodiversity
	TEP Policy NE4 Green Infrastructure
BREEAM	**LE 01** Site Selection
	LE 02 Ecological Risks and Opportunities
	LE 03 Managing Impact on Ecology
	LE 04 Ecological Change and Enhancement
	LE 05 Long Term Ecological Management

Table 4 Key Performance Indicators and Targets for 'Nature & Biodiversity'

KEY PERFORMANCE INDICATOR	UNITS	BEST PRACTICE TARGET VALUE
Biodiversity net gain (on or off-site)	% (Biodiversity Unit)	10% (on-site)

5.2 Strategy

The nature and biodiversity strategy has been developed based on the Ecological Impact Assessment (EIA) undertaken by Richard Green Ecology to identify natural assets and opportunities to enhance the ecological value of the site and inform the Landscape and Green Infrastructure Strategy, which has been developed by Greenhalgh landscape architects. The key findings of this EIA are summarised as follows:

- The Site is a mixture of hardstanding with light industrial units and a decommissioned factory, and areas within and surrounding the site also include ruderal and ephemeral vegetation, rank and amenity grassland, trees, hedges, scrub and non-native shrubs.
- The Site is used by roosting, foraging, and commuting bats, and common reptiles, and is likely to support common amphibians, hedgehogs, invertebrates and nesting birds.
- The development is considered to result in no more than a minor adverse ecological impact on a local scale.
- The Site is predominantly considered no more than of local ecological value, however the line of mature and semi-mature hybrid black poplar trees within the site along its south east boundary is considered to be a Habitat of Principle Importance (NERC, 2006) and should be retained and enhanced.
- The landscaping of the site has the potential to deliver biodiversity net gain and provide habitat enhancements for protected and notable species, for example by providing wildlife buffers.
- The demolition of three buildings could potentially result in the disturbance, injury or killing of bats during works, therefore these demolitions would require a European protected species license (EPSL) from Natural England, which can be applied for once planning permission is granted.
- Clearance of habitats could result in the injury or killing of reptiles and the loss of their habitat, therefore a reptile mitigation strategy is required to avoid this and to maintain the population on-site.

The following opportunities and measures have been identified to deliver biodiversity enhancement and these proposals will be considered further during the next stages:

- Sensitively timing works and searching scrub and hedges prior to clearance for protected and notable species.
- Landscaping the site with a mix of native trees and shrubs and planting a mix of native and non-native flowering nectar-rich species to encourage invertebrates.
- Retaining and enhancing existing features of value, especially hedges and trees, for example by planting additional native species and providing buffer zones.
- Incorporating multi-functional green spaces and dedicated areas for wildlife throughout the site, for example buffer strips.
- Installing bat roosting features on new buildings, situated in dark areas of the site and facing suitable bat foraging and commuting habitats.
- Installing bird nesting features on the most suitable new buildings, located on the north or east elevations to avoid excessive heating or prevailing weather conditions.
- Incorporating a sensitive lighting plan supported by a lux contour plan to ensure the dark corridor of the railway does not exceed 0.5 lux (further detail is provided within the EIA), safeguarding bat foraging and commuting.
- Incorporating a reptile mitigation strategy, providing a suitable habitat on-site to sustain any reptile population or translocating reptiles to an off-site receptor location.

Efforts to deliver a biodiversity net gain on the site will be explored as far as possible during the next stages by considering the above opportunities and measures included within the EIA.

A high-level Landscape and Green Infrastructure Strategy has been developed by Greenhalgh landscape architects which contributes to nature and biodiversity aspects of the development proposal, informed by the EIA and wider design proposals. The strategy guides maximum landscape and tree planting across the site to ensure biodiversity net gain and to moderate local climate temperatures, and a highly green and open layout that respects local habitats and wildlife corridors. Sustainable Urban Drainage systems (SUDs) are also a key aspect of this strategy to create a varied area of habitat whilst minimising flood risk.

Due to the outline nature of the application, a detailed landscape and green infrastructure strategy has not yet been developed. This will be developed in the next stages and will follow the recommended strategies outlined within the EIA to deliver biodiversity enhancement.

5.3 Assessment

Through progressing the opportunities and measures identified in the Ecological Impact Assessment (EIA) and Landscape and Green Infrastructure Strategy, as summarised above, the development is expected to deliver biodiversity enhancement and achieve the relevant land use and ecology aspects of BREEAM Excellent. Efforts to deliver a biodiversity net gain (BNG) on the site and achieve as a minimum the 'Best Practice' target level of performance under the KPI will be explored as far as possible. These will be considered further during the next stages of design and included within the Reserved Matters application(s).

6 ENERGY & CARBON EMISSIONS

This section describes the proposed 'Energy & Carbon Emissions' strategy for the Water Lane development to pursue the objective to *'Minimise energy consumption and carbon emissions from the development through employing a hierarchical approach to energy, reducing the electricity required from the grid and addressing fuel poverty, and pursuing a Pathway to Net Zero Carbon'*.

This strategy is based on employing a hierarchical approach to energy to reduce energy demand and demonstrating how on-site renewable energy generation can be utilised to reduce CO_2 emissions from residual energy use in the buildings.

6.1 Key Requirements

The 'Energy & Carbon Emissions' strategy will seek to meet national and ECC local planning policies as well as the targeted level of performance across the Water Lane delivery framework KPIs. These are summarised below.

Table 5 'Energy & Carbon Emissions' planning policies

DRIVER	POLICY/STRATEGY/TARGET REQUIREMENT
The National Planning Policy Framework	Meeting the challenge of climate change, flooding and coastal change.
Building Regulations Part L	Minimising carbon emissions from building energy use and operation.
Climate Change Act	Net zero greenhouse gas emissions by 2050
ECC Adopted Core Strategy	**CS Policy CP13** Decentralised Energy Network
	CS Policy CP14 Renewable and Low Carbon Energy
	CS Policy CP15 Sustainable Construction
The Exeter Plan - Outline Draft Plan	**TEP Policy S2, Principle 2** Outstanding performance
	TEP Policy S2, Principle 4 Liveable buildings
	TEP Policy CE1 Net Zero Exeter
	TEP Policy CE2 Local Energy Networks
BREEAM	**Man 03** Responsible Construction Practices
	Man 04 Commissioning & Handover
	Ene 01 Reduction of Energy Use and Carbon Emissions
	Ene 03 External Lighting
	Ene 04 Low Carbon Design
	Ene 08 Energy Efficient Equipment

Table 6 Key Performance Indicators and Targets for 'Energy & Carbon Emissions'

KEY PERFORMANCE INDICATOR	UNITS	BEST PRACTICE TARGET VALUE
Property energy demand	kWh/m^2/year	<35* (Residential) <55* (Commercial)
Reduction in regulated carbon dioxide emissions by low or zero carbon technologies only	%	>20*
Total annual property carbon dioxide emissions	kgCO2/m^2/year	<0* (Net Zero Carbon in Operation as Defined by UKGBC NZC Buildings Framework)

*To be established and confirmed in the next stages with detailed energy modelling undertaken for the different use typologies

6.2 Strategy

6.2.1 Applying the Energy Hierarchy

A 'Lean, Clean, Green' hierarchical approach is proposed for the Water Lane development. This approach aims to minimise energy demand and consumption from the outset through the use of low energy, passive measures and efficient systems before the deployment of low and zero-carbon (LZC) technologies.

The rationale is that it is more cost effective to reduce energy demands by prioritising passive design measures and low energy efficient systems, before considering deployment of LZC technologies. This approach also ensures that contributions from LZC systems are maximised.

The energy hierarchy is summarised as follows:

- Lean: Reduce energy demand through passive design measures,
- Clean: Supply energy efficiently and use market leading energy efficient equipment,
- Green: Incorporate on-site low and zero carbon systems.

The following sections present potential measures that can be employed across the energy hierarchy to minimise the energy demand and CO_2 emissions of the Water Lane development.

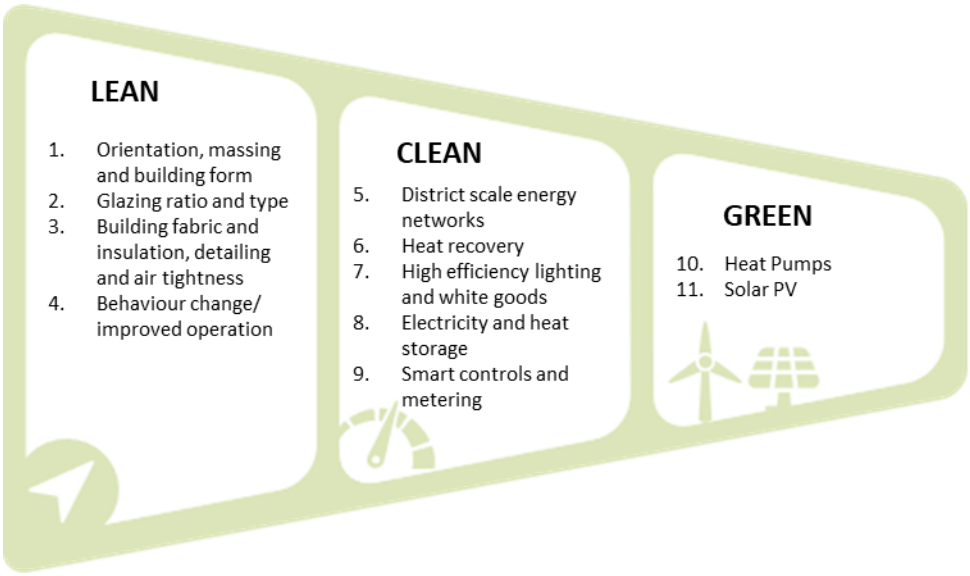


Figure 4: Energy Hierarchy

6.2.1.1 Lean

Lean energy strategies and measures utilise passive design approaches to reduce the onsite energy demand from the outset, and thus associated CO_2 emissions. Potential strategy measures considered for the Water Lane development are:

- **Optimised orientation, massing and form:** Adopt passive design principles and approaches, optimising building massing, form and orientation to maximise seasonal 'free' heating and cooling, whilst reducing overheating risks and the need for reliance on comfort cooling.
- **Building fabric and Insulation, Detailing and airtightness:** Apply a fabric first approach that minimises building space heating demands by following high air tightness standards and using highly insulating building fabric.
- **Glazing ratio and type:** Optimise glazing ratios to create a highly insulated building envelope whilst supporting high levels of natural daylight.
- **Behaviour change / Improved operation:** Utilise findings from best practice post occupancy evaluation case studies to inform and incentivise behaviour change.

These principles are described in the PDAS. The energy strategy will ensure that these approaches are explored and employed where possible during the next stages, and that the infrastructure and building control strategies are SMART, intuitive and promote a culture of energy conservation across all users.

6.2.1.2 Clean

Clean energy strategies and measures utilise highly efficient processes and controls to reduce energy demand. This can help future proof development, improve air quality and reduce CO_2 emissions. Potential measures include:

- Incorporating SMART grid and building infrastructure including metering, controls, appliances, energy storage and electric vehicle charging systems where viable.
- Incorporating high efficiency white goods and equipment, and high performance LED lighting throughout internal/external spaces.

- Incorporating EEMs including high efficiency building services systems (e.g. pumps, fans, etc.) including ventilation systems with heat recovery, such as MVHR systems in residential properties.

District energy/ heating systems can deliver significant energy and CO_2 savings when implemented effectively. A District Energy Network (DEN) Techno-Economic feasibility study is currently being commissioned by the WLDMC and ECC to cover the draft Water Lane and Marsh Barton site allocations (in the Outline Draft Exeter Plan). The findings of this study will be incorporated in design development during the next stages, and will include allowance for the potential connection to an existing/planned DEN as a minimum.

6.2.1.3 Green

Following the reduction of energy demands through 'lean' and 'clean' measures, the final stage is to consider on-site LZC technologies i.e. 'Green' measures. Deployment of on-site LZC technologies should help to further reduce the development's CO_2 emissions.

From an initial review of low and zero carbon/ renewable energy generation options, there is potential to install Air, Ground or Water Source Heat Pumps (ASHP, GSHP and WSHP) and roof mounted Solar PV panels/ tiles to provide renewable energy to the development and meet the delivery framework KPIs and targets. A full low and zero carbon (LZC) technology viability review will be completed as part of the next design stages in conjunction with the MEP design to deliver the most appropriate solution for the Water Lane development. This will include detailed studies to confirm the suitability of heat pumps from a neighbourhood to building level, and the PV panel/ tile areas possible and contribution to the CO_2 emissions reduction, based on the detailed building modelling and Part L compliance analysis.

6.2.1.4 Net Zero Carbon

Policy CP14 of the ECC Adopted Core Strategy requires all major development to '*use decentralised and renewable or low carbon energy sources, to cut predicted CO_2 emissions by the equivalent of at least 10% over and above those required to meet the then current building regulations*'. Policy CP15 also requires '*all new homes to be Zero Carbon from 2016*' and '*All non-domestic developments to be Zero Carbon from 2019*'.

Whilst subject to further detailed design, it is proposed that a combination of the energy hierarchy measures outlined above, including the meeting the Governments Future Homes and Building Standards to be Zero Carbon ready from 2025, will be incorporated into the design of the Water Lane development. This is expected to deliver a minimum of 20% reduction against the Building Regulations Part L Target Emission Rate (TER), and achieve the 10% reduction in carbon emissions through renewable or LZC energy sources, for example, through the use of air-source heat pumps and solar photovoltaics. It is proposed that this level of performance will be delivered through on-site measures only.

In the absence of a 'Net Zero Carbon' definition within the ECC Local Plan Adopted Core Strategy policy or The Exeter Plan (Outline Draft Plan) policy, an energy strategy approach aligned with the UKGBC 'Net Zero Carbon Buildings Framework' will be followed to establish and deliver a 'Pathway to Net Zero Carbon' for the Proposed Development in operation. This is not a formal policy, however it is widely referenced within the industry and provides a robust methodology for delivering Net Zero Carbon developments.

As has been proposed in the sections above, the guidance promotes application of the energy hierarchy to minimise emissions on-site as much as possible, before considering opportunities for off-site renewable energy supplies (e.g. renewable energy power purchase agreements) and carbon offsetting as a last resort.

The detailed proposals to establish and deliver a Pathway to Net Zero Carbon, will be explored in future design stages and confirmed as part of the Reserved Matters application(s).

6.3 Assessment

Due to the application being submitted in outline, it is not possible to complete detailed energy modelling for the proposed development at this time as only limited information is available.

To provide an outline assessment of the Water Lane development's CO_2 emissions, an estimate has been calculated using benchmarks based on the proposed building typologies and the energy hierarchy measures outlined above. These benchmarks have been derived from past project experience across the project team, which has included detailed energy modelling, and industry best practice standards such as those included within the 'LETI - Climate Emergency Design Guide', and applied on a per m^2 basis. The area schedule utilised for these calculations has been taken from 'Scenario 1' in the PDAS and accompanying parameter plan information.

The graph below provides an outline estimate of the proposed Water Lane development's annual CO_2 emissions, and illustrates the possible reductions in CO_2 emissions through pursuing a Pathway to Net Zero Carbon, going from steps **(1)** to **(7)** targeting:

- **(1)** compliance the Building Regulations Part L2A and Part L1A Target Emissions Rate (TER);
- Meeting the ECC Adopted Core Strategy policies CP14 and CP15 including **(2)** a delivering 10% of on-site renewable energy/LZC contribution and **(3)** targeting a BREEAM 'Excellent' performance under Ene 01. A minimum of four Ene 01 credits must be achieved in order to achieve a BREEAM 'Excellent' rating, which roughly equates to a 20% reduction in CO2 emissions against the 'Baseline' TER as illustrated below;
- Further reductions across **(4)** to **(6)** by employing the 'Lean, Clean, Green' energy hierarchy measures outlined above including connection to a low-carbon DEN and incorporating ASHP and solar PV's on suitable roofs in line with the information provided in the PDAS and achievement of the 'Best Practice' target levels of performance under the development's delivery framework KPI's;
- **(7)** by employing further measures to deliver a Net Zero Carbon development (in operation) in alignment with the UKGBC 'Net Zero Carbon Buildings Framework'.

These results are estimates at this stage and indicate an order of magnitude for the potential CO_2 reductions that could be achieved within the development. This estimate will be further developed and confirmed through detailed design and consultation with future plot developers/occupiers during the next stages. As described above, these outline calculations provide a possible route to achieving the related ECC Local Plan Adopted Core Strategy policy requirements (CP14 and CP15), and are subject to energy modelling, detailed design and technical and financial viability studies (including a low and zero carbon technology study and DEN techno-economic study). All details will be explored further and confirmed within the Reserved Matters application(s).

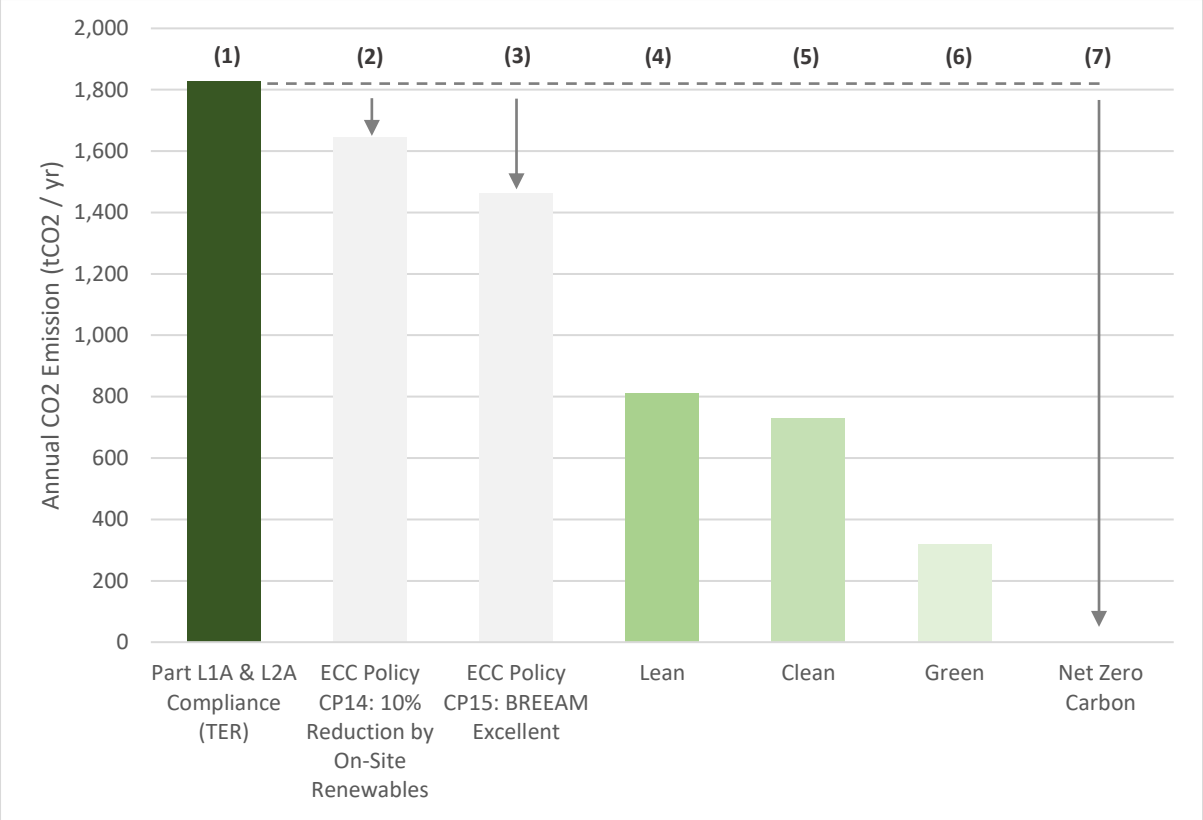


Figure 5: CO2 emissions results

STEPS (1) TO (7) INCLUDING ENERGY HIERARCHY	REGULATED CO2 EMISSIONS (kgCO2/yr)	REDUCTION AGAINST BASELINE
(1) the 'Baseline', inc. Compliance with Building Regulations Part L2A and Part L1A Target Emissions Rate (TER)	1,820,000	-
(2) Meeting ECC Policy CP14: 10% Reduction by On-Site Renewables/LZC Technologies	1,645,000	10%
(3) Meeting ECC Policy CP15: BREEAM 'Excellent'	1,520,000	16%
(4) Adopting 'Lean' Measures	810,000	56%
(5) Adopting 'Clean' Measures	730,000	60%
(6) Adopting 'Green' Measures	320,000	83%
(7) Targeting Net Zero Carbon (in alignment with UKGBC 'Net Zero Carbon Buildings Framework')	0	100%

Table 8: Regulated CO2 emissions assessment and reductions (kgCO2/year)

7 MATERIALS & WASTE MANAGEMENT

This section describes the proposed 'Materials & Waste Management' strategy for the Water Lane development to achieve the objective to *'Promote sustainable material use and minimise waste generated during construction and operation'*.

This strategy is based on minimising the impacts of material use both within the construction and operation of the Water Lane development.

7.1 Key Requirements

The 'Materials & Waste Management' strategy will seek to meet national and ECC local planning policies as well as the targeted level of performance across the Water Lane delivery framework KPIs. These are summarised below.

Table 9 'Materials & Waste Management' planning policies

DRIVER	POLICY/STRATEGY/TARGET REQUIREMENT
The National Planning Policy Framework	Facilitating the use of sustainable minerals.
ECC Adopted Core Strategy	**CS Policy CP15** Sustainable Construction
	Residential Design Guide SPD
The Exeter Plan – Outline Draft Plan	**TEP Policy S2, Principle 2** Outstanding performance
	TEP Policy CE1 Net Zero Exeter
	TEP Policy D1 Design principles
Devon Waste Plan 2011-2031	**DWP Policy W1** Presumption in Favour of Sustainable Development
	DWP Policy W2 Sustainable Waste Management
	DWP Policy W4 Waste Prevention
	DWP Policy W5 Reuse, Recycling and Materials Recovery
	DWP Policy W7 Waste Disposal
	DWP Policy W21 Making Provision for Waste Management
	Waste Management and Infrastructure Supplementary Planning Document (SPD)
BREEAM	**Man 03** Responsible Construction Practices
	Mat 01 Environmental impacts from construction products – Building life cycle assessment (LCA)
	Mat 02 Environmental Impacts From Construction Products (Environmental Product Declarations)
	Mat 03 Responsible Sourcing of Construction Products
	Mat 05 Designing for Durability & Adaptation
	Mat 06 Material Efficiency
	Wst 01 Construction Waste Management
	Wst 02 Use of recycled and sustainably sourced aggregates

DRIVER	POLICY/STRATEGY/TARGET REQUIREMENT
	Wst 03 Operational Waste
	Wst 05 Adaption to Climate Change
	Wst 06 Functional Adaptability

Table 10 Key Performance Indicators and Targets for 'Materials & Waste Management'

KEY PERFORMANCE INDICATOR	UNITS	BEST PRACTICE TARGET VALUE
Onsite non-hazardous construction waste diverted from landfill	% (tonnes)	>95%*
Operational waste diverted from landfill	% (tonnes)	>85%*
Materials with environmental certification credentials suitable to the type of material (i.e. FSC for timber, Green Guide, HQM / BREEAM materials category)	TBC*	TBC*

*To be established and confirmed in the next stages

7.2 Strategy

Measures to support efficient use of materials will be employed across all aspects of the Water Lane development. With the application being submitted in outline, detailed information on the building design will be developed during the next stages however the overarching principles to be followed are discussed below and in the Planning Design & Access Statement (PDAS).

7.2.1 Construction Materials

Construction materials have far-reaching environmental, economic and social impacts, with irresponsible selection and use having consequences that can lead to further habitat destruction, global warming and economic exploitation. Due to a decarbonising electricity grid and improving levels of building energy efficiency, the carbon emissions associated with construction materials often now outweigh the operational carbon emissions over a building's lifetime.

The proposed Water Lane development will respond to these concerns through several ways, which may include:

- Material use will be minimised as much as possible using efficient design and offsite prefabrication processes where possible.
- Recycled, renewably sourced and robust ecologically inert materials will be employed where viable to help reduce the whole life environmental impacts of the development, particularly embodied carbon impacts. A cradle-to-cradle approach will be employed, which will consider the lifecycle of the material from its sourcing to its potential reuse. The impact on climate change from carbon emissions embodied in development materials will be calculated using a nationally recognised carbon assessment method, and adequate steps will be taken in the design of the development to reduce this impact as part of pursuing a Pathway to Net Zero Carbon (Refer to Section 6, Energy & Carbon Emissions).
- Materials with relevant environmental certification credentials (e.g. FSC timber) will be selected where applicable to ensure materials are coming from responsible and sustainable sources.

- Site won material will be used for site preparation where possible, and where not feasible a secondary recycled aggregate from crushed brick or concrete will be used in preference to natural aggregate. All insulation materials used in the project will have zero ozone depreciation potential (ODP) and have a Green Guide rating A.
- VOC free products and finishes will be used throughout, as will water based paints and stains. Building materials and products will be sourced where practical from suppliers who manufacture with certified EMS (Environmental Management Systems). This will include timber products which will be obtained from sustainable resources and no timber or timber products will be used from protected tree species.

The Water Lane development's Waste Audit Statement at this outline stage asserts that material generated through demolition of existing on-site buildings is expected to be reused on-site where possible. Some of these and some ways in which they are expected to be reused are as follows:

- Concrete: Crushed on site and reused for fill, road base and construction as appropriate;
- Bricks: Saved and reused in construction or recycled;
- Steel: Separated and prepared on site to be sent for recycling;
- Timber and other suitable waste streams: Sent for energy recovery; and
- Soils: Separated and stored for use as fill or in landscaping features.

Detailed design of the buildings and their material palette will be developed during the next stages, where the above strategies will be employed within the design process.

7.2.2 Construction Waste

To minimise waste generated from construction activities, an outline pre-construction Site Waste Management Plan (SWMP) has been developed at this stage. Further iterations of this document will establish detailed targets informed by both BREEAM and the Water Lane delivery framework KPI's for construction waste management, prevention methods and cost saving opportunities.

Due to the nature of buildings proposed on-site, off-site pre-fabrication will be considered for some elements as a possible solution. This method of manufacturing building elements in a controlled factory setting not only delivers efficiency as discussed above, but can also significantly reduce construction waste generation. Waste segregation at source will also enable the proposed development to divert from landfill, reusing both within, and if appropriate outside of the site boundary, if there is a need to transfer waste off-site.

A cut/ fill balance will be targeted, reducing waste generation and the need for additional vehicle movements.

7.2.3 Operational waste

For operational waste, the Water Lane development will employ a waste hierarchy, with the aim of first reducing waste, before considering reuse and recycling where appropriate.

The key aims informing the development of the waste management strategy are as follows:

- Waste is to be managed in line with the waste hierarchy to minimise the quantity of waste sent to landfill.
- Encourage waste minimisation and promote recycling and reuse. For example single use plastics will be eliminated as much as possible.
- Provide appropriate space and storage facilities for recyclables, organic (food) and residual wastes.

- Raise awareness of waste management issues with residents, workers and visitors, and encourage occupiers to work collaboratively to reduce and manage waste.

The building plot designs are yet to be developed in detail, however appropriate space and facilities for waste management will be included within the designs. Sufficient space for segregated storage of waste streams will be provided within each plot, for example secure and convenient refuse stores will be provided for the apartment blocks either within the buildings themselves, or in covered external stores located conveniently for access and collection. Refuse storage for non-residential uses is also to be accommodated within each demise and separate arrangements made for collection.

These stores will support recycling aligned with local waste collection infrastructure. In occupied areas of the development such as office areas, appropriate signage and collection points will be installed to support and encourage waste segregation at source.

7.3 Assessment

Through following the principles above and included within the PDAS, the development is expected to achieve the relevant management, materials and waste aspects of BREEAM Excellent and the 'Best Practice' target levels of performance under the KPI's. These will be considered further during the next stages of design and included within the Reserved Matters application(s).

8 WATER RESOURCES

This section describes the proposed 'Water Resources' strategy for the Water Lane development to pursue the objective to '*Maximise water efficiency across the site through reducing consumption and exploring alternative sources where possible.'* This will create a positive impact on the wider catchment area and reduce reliance on potable water supply from the municipal network.

This strategy is based on employing a water hierarchy, and the premise that water is a critical resource and should be valued as such. Implementing conservation measures and maximising opportunities to produce and use alternative low impact sources can minimise stress on traditional supplies and reduce the associated energy consumption and CO_2 emissions from mains water treatment and supply.

8.1 Key Requirements

The 'Water Resources' strategy will seek to meet national and ECC local planning policies and target levels of performance across the Water Lane delivery framework KPIs for the implementation of a water efficient development. These are summarised below.

Table 11 'Water Resources' planning policies

DRIVER	POLICY/STRATEGY/TARGET REQUIREMENT
The National Planning Policy Framework	Meeting the challenge of climate change, flooding and coastal change
ECC Adopted Core Strategy	**CS Policy CP15** Sustainable Construction
The Exeter Plan – Outline Draft Plan	**TEP Policy S2, Principle 2** Outstanding performance
BREEAM	**Man 03** Responsible Construction Practices
	Wat 01 Water consumption
	Wat 02 Water Monitoring
	Wat 03 Water Leak Detection
	Wat 04 Water Efficient Equipment

Table 12 Key Performance Indicators and Targets for 'Water Resources'

KEY PERFORMANCE INDICATOR	UNITS	BEST PRACTICE TARGET VALUE
Water per capita consumption (PCC) per day	Litres	<100* (Residential)
		<40* (Commercial)

*To be established and confirmed in the next stages for the different typologies

8.2 Strategy

8.2.1 Approach

Key drivers for the Water Lane water strategy are as follows:

- To ensure efficient resource use and demand.
- To align with key targets and policy, for site water use management.
- To ensure whole life cost savings associated with efficient water resource system design and operation are outlined and achieved.

The proposed water strategy will follow a hierarchical approach to support the conservation of water supplies and resources. This approach looks to minimise water demand as a priority, before considering the later steps of the hierarchy: efficient fixtures, fittings and distribution and alternative sources for lower grade use.

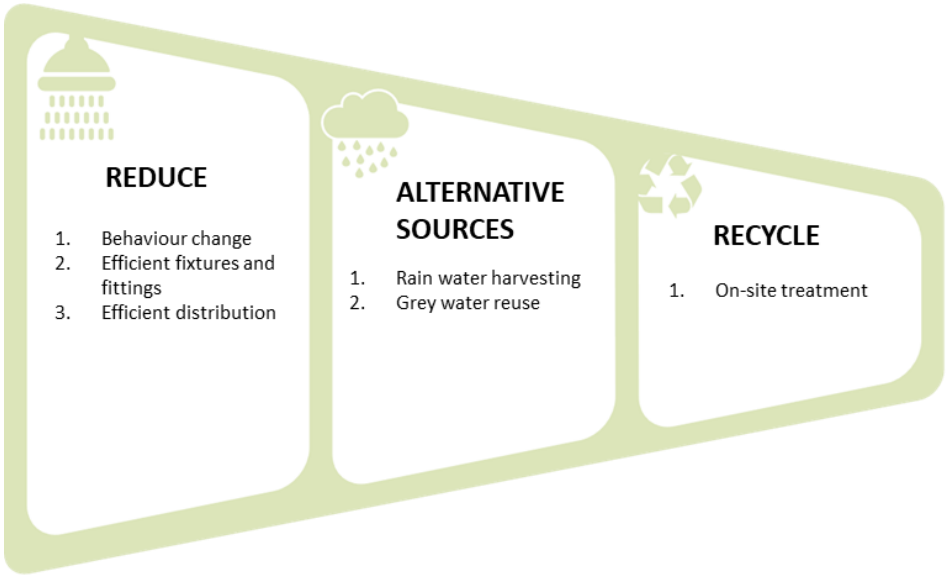


Figure 6: Water hierarchy

8.2.2 Proposals

Measures to conserve and minimise water consumption, which will be considered further during detailed design of the Water Lane infrastructure and buildings, are explained further below aligned with the hierarchical approach:

1. **REDUCE:** High performance water efficient fixtures and fittings can help reduce site water consumption and demands on wastewater services. These represent passive measures and require no behavioural changes by the end users. Specific flow rate targets will be confirmed at the Reserved Matters stage in line with BREEAM 'Excellent' requirements.

   System efficiency can also be optimised by improvements in the design and distribution of the water system, reducing leakages and losses across site. Intelligent design that reduces the number of dead legs and minimises overall distribution lengths shall be sought, whilst additional features such as flow restrictors will be considered. The use of metering and leak detection will be encouraged to enable close monitoring and management of water use.

2. **ALTERNATIVE SOURCES:** The use of alternative water sources, primarily for non-potable use, can help to alleviate demand on scarce water sources and reduce costs associated with potable water supply to the development.

   Rainwater is considered as a relatively clean water source, needing only minimal treatment before use in non-potable water systems such as toilet flushing and irrigation. The use of onsite rainwater harvesting can help reduce the development's demands on the mains water supply and can minimise stress on site drainage systems.

   The quantities of rainwater available for use depends on the collection area, surface, filter efficiency and average rainfall. As rainfall is not a steady daily supply, storage vessels are required to be sized to hold several days' supply at a time to meet continual daily demands. All rainwater storage will also require mains water backup supply to accommodate periods of low rainfall.

   The potential to utilise rainwater harvesting systems will require further exploration within the detailed design of the buildings.

3. **RECYCLE:** Water strategies to 'Recycle' water involve collecting grey and black water to be recycled and treated for secondary usage, including:
   - Domestic greywater treatment to potable standards through recycling systems and appliances such as recycling showers.
   - Black water/grey water treatment to potable water standards.
   - Black water/grey water treatment to sub-potable water for toilet flushing and irrigation.

   A feasibility study into the viability of grey and black water recycling will be undertaken during the next stages.

   The majority of the 'Reduce' measures shown above would be implemented at a building level only, due to their focus on reducing demand at the point of use, however there is also potential for site wide infrastructure controls and metering in order to achieve greater reductions.

8.3 Assessment

Through following the principles above and included within the PDAS, the development is expected to achieve the relevant management and water aspects of BREEAM Excellent and the 'Best Practice' target levels of performance under the Water Lane delivery framework KPI. These will be considered further during the next stages of design and included within the Reserved Matters application(s).

9 COMMUNITY CONNECTIVITY

This section describes the proposed 'Community Connectivity' strategy for the Water Lane development to pursue the objective to '*Encourage community connectivity and engagement by creating public spaces designed for play, recreation, social interaction and rest*'.

9.1 Key Requirements

The 'Community Connectivity' strategy will seek to meet national and ECC local policies as well as performance targets across the Water Lane delivery framework KPIs. These are summarised below.

Table 15 'Community Connectivity' planning policies

DRIVER	POLICY/STRATEGY/TARGET REQUIREMENT
The National Planning Policy Framework	Promoting healthy and safe communities.
	Achieving well-designed places.
ECC Adopted Core Strategy	**CS Policy CP10** Meeting Community Needs
	CS Policy CP16 Green Infrastructure
The Exeter Plan – Outline Draft Plan	**TEP Policy S2, Principle 1** Memorable places
	TEP Policy S2, Principle 2 Outstanding performance
	TEP Policy S2, Principle 3 Welcoming neighbourhoods
	TEP Policy S2, Principle 5 Active streets
	TEP Policy S2, Principle 6 Spaces for people and wildlife
	TEP Policy HS1 The vitality of our high streets
	TEP Policy C1 Protecting and enhancing cultural and tourism facilities
	TEP Policy IC2 Community facilities
BREEAM	**Hea 07** Safe and healthy surroundings

Table 16 Key Performance Indicators and Targets for 'Community Connectivity'

KEY PERFORMANCE INDICATOR	UNITS	BEST PRACTICE TARGET VALUE
Human Scale - Provision of places for people to gather and connect internally and/or with the neighbourhood	Number/ 1,000m2	0.5*
Inspire and celebrate - target number of community events hosted on the development per month (e.g. festival, course, lecture, workshop)	Number/ year	1*

*To be established and confirmed in the next stages

9.2 Strategy

The community connectivity strategy will ensure that the Water Lane development will provide social value to local communities through increased opportunities for social interaction in high quality, attractive settings that encourage gathering, play, recreation and rest. This will improve social inclusion and recreational activities for local communities, also contributing to improved physical health, mental health and wellbeing.

The following opportunities included within the PDAS have been identified to deliver community connectivity across the site and these proposals will be considered further during the next stages:

- Creation of liveable streets and spaces for active travel and community interaction.
- Neighbourhood centre, open space area for gathering and connection.
- Provision of informal play opportunities with demonstrative features encouraging play.
- Local areas of play, 'activity zones', principally for younger children to connect and play.
- Play areas in private amenity space, accessible to residents.
- Informal playable public realm and pocket social spaces.
- Key public open space in the 'Canalside Park', utilising the character of the canal-side environment.
- Private amenity space for residents' communal use with doorstep play.

9.3 Assessment

Within the Water Lane development, measures will be implemented to create a high-quality, inclusive social public realm and internal space for residents, workers and visitors. Measures to promote community connectivity will be developed further within building, infrastructure and landscaping designs during the next stages and these will aim to meet the relevant aspects of the BREEAM 'Excellent' strategy and the 'Best Practice' target levels of performance under the KPI's, and included within the Reserved Matters application(s).

10 QUALITY, ACCESSIBLE & SAFE PLACES

This section describes the proposed 'Quality, Accessible & Safe Places' strategy for the Water Lane development to pursue the objective to '*Provide an accessible, safe and inclusive development through a holistic approach to design'*.

10.1 Key Requirements

The 'Quality, Accessible & Safe Places' strategy will seek to meet national and ECC local policies as well as performance targets across the Water Lane delivery framework KPIs. These are summarised below.

Table 15 'Quality, Accessible & Safe Places' planning policies

DRIVER	POLICY/STRATEGY/TARGET REQUIREMENT
The National Planning Policy Framework	Promoting healthy and safe communities.
	Achieving well-designed places.
ECC Adopted Core Strategy	**CS Policy CP5** Meeting Housing Needs
	CS Policy CP10 Meeting Community Needs
	CS Policy CP15 Sustainable Construction
	CS Policy CP16 Green Infrastructure
	CS Policy CP17 Design and Local Distinctiveness
The Exeter Plan – Outline Draft Plan	**TEP Policy S2, Principle 1** Memorable places
	TEP Policy S2, Principle 2 Outstanding performance
	TEP Policy S2, Principle 3 Welcoming neighbourhoods
	TEP Policy S2, Principle 5 Active streets
	TEP Policy S2, Principle 6 Spaces for people and wildlife
	TEP Policy D1 Design principles
BREEAM	**Hea 06** Security
	Hea 07 Safe and healthy surroundings

Table 16 Key Performance Indicators and Targets for 'Quality, Accessible & Safe Places'

KEY PERFORMANCE INDICATOR	UNITS	BEST PRACTICE TARGET VALUE
Accessible design - Proportion of development designed to provide access for those with physical disabilities (i.e. to Universal Design and DDA standards).	%	>40*
Accessible design - Provision of adaptable and/or intergenerational dwellings/homes	%	>20*

Site wayfinding - Proportion of site that is independently navigable by 7-year-old and conforms to dementia friendly design guidelines	%	50*

*To be established and confirmed in the next stages

10.2 Strategy

The quality, accessible and safe places strategy for the Water Lane development will ensure that accessibility and safety is maximised for all, and all residents, workers and visitors feel welcomed and included through intelligent design of public realm and internal and external spaces. This will enhance feelings of belonging and safety and reduce obstacles to the ability to carry out daily activities, also contributing to health and wellbeing.

The following opportunities included within the PDAS have been identified to deliver quality, accessible and safe places across the site and these proposals will be considered further during the next stages:

- The development layout will promote a safe and secure environment.
- Provision of green space by the towpath that hosts seating and social and play spaces.
- Creation of safe and high-quality footpath and cycle connections.
- All access routes will be overlooked to ensure safety.
- Landmark features will help people to navigate within the new neighbourhood.
- The movement network will connect to existing routes to provide an integrated community.
- The urban fabric is made up of perimeter blocks that provide 'active frontages' of overlooked streets. Arrangements will provide activity and natural surveillance and avoid areas to loiter.
- Usable spaces with good surveillance have been worked into the design proposals. Public spaces, SUDS and canal paths will be overlooked to maximise safety and create a safe and attractive setting for homes.

Further opportunities such as the provision of appropriate accessible facilities such as priority parking spaces, level entry access points including ramps or lifts, and accessible building facilities such as bathrooms will also be considered in the next design stages.

10.3 Assessment

Within the Water Lane development, measures will be implemented to ensure a high-quality, accessible and safe built environment for all residents, workers and visitors of the site. Measures to promote development quality, accessibility and safety will be developed further within building, infrastructure and landscaping designs during the next stages. These will aim to meet the relevant aspects of the BREEAM 'Excellent' strategy and the 'Best Practice' target levels of performance under the KPI's, and included within the Reserved Matters application(s).

11 SKILLS & JOBS

This section describes the proposed 'Skills & Jobs' strategy for the Water Lane development to pursue the objective to '*Provide training, employment and job opportunities for all through the project lifecycle and create inspirational places and spaces designed to retain Exeter's talented workforce and graduates'*.

11.1 Key Requirements

The 'Skills & Jobs' strategy will seek to meet national and ECC local policies as well as performance targets across the Water Lane delivery framework KPIs. These are summarised below.

Table 13 'Skills & Jobs' planning policies

DRIVER	POLICY/STRATEGY/TARGET REQUIREMENT
The National Planning Policy Framework	Building a strong, competitive economy.
ECC Adopted Core Strategy	**CS Policy CP1** Spatial Strategy
	CS Policy CP2 Employment
The Exeter Plan – Outline Draft Plan	**TEP Policy S2, Principle 2** Outstanding performance
	TEP Policy S2, Principle 3 Welcoming neighbourhoods
	TEP Policy EJ3 New forms of employment provision
	TEP Policy EJ4 Access to jobs and skills

Table 14 Key Performance Indicators and Targets for 'Skills & Jobs'

KEY PERFORMANCE INDICATOR	UNITS	BEST PRACTICE TARGET VALUE
Creation of new apprenticeships by the development	Apprenticeships (number)	TBC*
Creation of new permanent jobs on the completed development	Jobs (number)	TBC*
Creation of construction jobs by the development	Jobs (number)	TBC*

*To be established and confirmed in the next stages

11.2 Strategy

The 'Skills & Jobs' strategy for the Water Lane development includes:

- The creation of valuable employment opportunities for the local region, including construction jobs during the construction stage.

- Opportunities to support local employment for residents of the Water Lane development site and within nearby residential areas.
- Potential for apprenticeships and skills development opportunitie through for example partnerships with local education providers and the appointed contractor.

Through the provision of circa 390,000-430,000 sqft of commercial and non-residential space, it is anticipated that the Water Lane development will create a significant number of jobs (direct, indirect and induced) when fully operational, depending on the uses that occupy the development. Further jobs will also be supported during development construction, and opportunities to support apprenticeships will be considered. Measures will be explored further during the next design stages and included within the Reserved Matter application(s).

11.3 Assessment

The proposed development will provide new opportunities for work, which will inevitably bring employment, job and skill enhancement opportunities. The development is expected to achieve the 'Best Practice' target levels of performance under the Water Lane delivery framework KPIs and the opportunities outlined above will be considered further during the next stages of design and included within the Reserved Matters application(s).

12 HEALTH & WELLBEING

This section describes the proposed 'Health & Wellbeing' strategy for the Water Lane development to pursue the objective to '*Embrace active design and promote high quality environments to support and encourage mindfulness, recreation, sport and exercise'*.

12.1 Key Requirements

The 'Health & Wellbeing' strategy will seek to meet national and ECC local policies as well as performance targets across the Water Lane delivery framework KPIs. These are summarised below.

Table 15 'Health & Wellbeing' planning policies

DRIVER	POLICY/STRATEGY/TARGET REQUIREMENT
The National Planning Policy Framework	Promoting healthy and safe communities.
	Achieving well-designed places.
ECC Adopted Core Strategy	**CS Policy CP10** Meeting Community Needs
	CS Policy CP11 Pollution
	CS Policy CP16 Green Infrastructure
The Exeter Plan – Outline Draft Plan	**TEP Policy S2, Principle 1** Memorable places
	TEP Policy S2, Principle 3 Welcoming neighbourhoods
	TEP Policy S2, Principle 4 Liveable buildings
	TEP Policy S2, Principle 5 Active streets
	TEP Policy S2, Principle 6 Spaces for people and wildlife
	TEP Policy H1 Health and wellbeing
BREEAM	**Hea 01** Visual comfort
	Hea 02 Indoor air quality
	Hea 04 Thermal comfort
	Hea 05 Acoustic Performance
	Hea 06 Security
	Hea 07 Safe and healthy surroundings
	Tra 02 Sustainable Transport Measures
	Pol 02 Local air quality

Table 16 Key Performance Indicators and Targets for 'Health & Wellbeing'

KEY PERFORMANCE INDICATOR	UNITS	BEST PRACTICE TARGET VALUE
Maximise Opportunities for Cycling to and from a Development Site, in line with the Requirements of the NPPF	%	Achieve the Target Mode Share for Cycling in The UKGov Ten Point Plan*
Human powered living - Provision of cycle storage facilities at a ratio of employees	**Ratio**	>1:10* (Commercial uses)

*To be established and confirmed in the next stages

12.2 Strategy

The health and wellbeing strategy for the Water Lane development will seek to improve the lives of site residents, workers and visitors and existing neighbouring communities through the promotion of healthy and active lifestyles, enhanced visual amenity and access to nature and green space for social interaction, play and rest, and the provision of a healthy and comfortable homes and workplaces.

The benefits of designing for health and wellbeing in internal areas are well researched. In addition to improved job satisfaction in workplaces, it is also demonstrated to improve mental, social and physical health and wellbeing, using minimum resources and low CO_2 emissions. Physical, mental and emotional health and wellbeing is also evidenced to be improved by having access to nature and attractive green outdoor space which encourages time spent outdoors, and the provision of ample and safe pedestrian and cycleways which encourages more active travel.

The health and wellbeing strategy will address the main factors across good building and environmental design to improve mental, social and physical health and wellbeing. The following opportunities have been identified to enhance health and wellbeing across the site and these proposals will be considered further during the next stages:

- An enhancement of green and blue infrastructure, providing access to nature, visual amenity and promoting wellbeing.
- Retention and enhancement of vegetation through planting, providing acoustic attenuation, natural screening and good air quality, resulting in positive health and wellbeing benefits. Design for a low/ no-car development will also enhance air quality for optimised health benefits.
- Promoting exercise through active travel options for residents, workers and visitors by providing an extensive network of pedestrian and cycle paths and appropriate facilities such as sufficient cycle storage.
- Promoting exercise and sporting activities through provision of a gym and pool on-site and close proximity to the riverside for water-based sport.
- Positive external spaces providing access to nature, peaceful spaces for rest and mindfulness and social spaces for connection to encourage health and wellbeing.
- High quality internal environments including daylighting, thermal comfort and good levels of ventilation.
- Optimising views for enhanced visual amenity, promoting wellbeing.
- Good access to amenities within the site and immediate surrounding area, reducing the need for travel and optimising time for a healthy work-life balance.
- Provision of areas for play and recreation, promoting joy and wellbeing.
- Inclusive and accessible design, enhancing feelings of belonging and promoting mental and emotional health and wellbeing.

12.3 Assessment

Within the Water Lane development, measures will be implemented to create a development that promotes optimal health and wellbeing for residents, workers and visitors. At a site level, infrastructure will be in place to support healthy active travel to, from and through the site such as pedestrian walkways, cycle paths and cycling facilities, and sites users will have access to natural, peaceful green space, landscaping proposals and dedicated play areas across the site. Internal environment measures will be considered such as natural daylighting, mitigating summer overheating risk and optimising indoor air quality parameters, ensuring occupancy comfort.

The health and wellbeing strategy for the Water Lane development will be progressed during the next design stages and will be aided by a Health and Wellbeing Impact Assessment. The strategy will aim to meet the relevant aspects of the BREEAM 'Excellent' strategy and the 'Best Practice' target levels of performance under the KPI's, and included within the Reserved Matters application(s).

13 RESILIENT ASSETS

This section describes the proposed 'Resilient Assets' strategy for the Water Lane development to pursue the objective to '*Adopt adaptive design approaches and design for the future climate to support long-term resilience of buildings and infrastructure '*.

13.1 Key Requirements

The 'Resilient Assets' strategy will seek to meet national and ECC local policies as well as performance targets across the Water Lane delivery framework KPIs. These are summarised below.

Table 17 ' Resilient Assets' planning policies

DRIVER	POLICY/STRATEGY/TARGET REQUIREMENT
The National Planning Policy Framework	Meeting the challenge of climate change, flooding and coastal change.
ECC Adopted Core Strategy	**CS Policy CP5** Meeting Housing Needs
	CS Policy CP7 Affordable Housing
	CS Policy CP12 Flood Risk
	CS Policy CP15 Sustainable Construction
	CS Policy CP17 Design and Local Distinctiveness
The Exeter Plan – Outline Draft Plan	**TEP Policy S2, Principle 2** Outstanding performance
	TEP Policy S2, Principle 3 Welcoming neighbourhoods
	TEP Policy S2, Principle 4 Liveable buildings
	TEP Policy CE1 Net zero Exeter
	TEP Policy CE3 Flood Risk
	TEP Policy HS1 The vitality of our high streets
	TEP Policy D1 Design principles
BREEAM	**Man 02** Life cycle cost and service life planning
	Ene 04 Low carbon design
	Wst 05 Adaptation to climate change
	Pol 03 Flood and Surface Water Management

Table 18 Key Performance Indicators and Targets for ' Resilient Assets'

KEY PERFORMANCE INDICATOR	UNITS	BEST PRACTICE TARGET VALUE
Provide mix of typologies and tenures reflective of projected local need and incomes to support long-term residency within scheme	Number	>4*

Resilient Buildings, Design for future climate - Adaptive comfort standards for year according to developer's approach to risk	Future weather year (2030/2050/2080)	2050*
Exceed a BREEAM score of >70%	BREEAM rating	Excellent (Commercial)

*To be established and confirmed in the next stages

13.2 Strategy

The 'Resilient Assets' strategy will ensure that the infrastructure and buildings of the Water Lane development are designed for the future climate, including storm, flood risk and temperature rise. It will also support resilience for changing social and personal needs, for example by enabling adaptive design of internal environments, and resilience of digital infrastructure that enables a step-change in digital communications.

With regards to storm and flood risk, Stantec have prepared a site specific Flood Risk Assessment (FRA) and drainage strategy to support the proposed development at Water Lane. The proposed drainage strategy has been designed to accommodate the 1 in 100 year + 45% climate change event with no flooding, and surface water will drain from the site at a restricted rate. Generally rainfall will be intercepted and attenuated by a green roof or podium deck, blue roof, pervious paving or bioretention system, and a geocellular crate system underground. A summary of the Resilient buildings and infrastructure, FRA and proposed drainage strategy is provided below.

13.2.1 Resilient Buildings and Infrastructure

The resilience of buildings and infrastructure with regards to future climate and overheating risks will be improved by embedding adaptive comfort standards and CIBSE TM 52/59 (including use of future weather files). Due to the application being submitted in outline, it is not possible to complete detailed future climate modelling for the proposed development at this time as only limited information is available. However, during the next stages the design of the buildings will be developed to limit overheating risks through incorporating mitigation measures such as shading devices, thermal mass and natural ventilation. Dynamic thermal modelling will be undertaken using future weather data in line with CIBSE TM 52/59 or equivalent standard to inform mitigation strategies and these will be included within the Reserved Matters submission(s).

Incorporating adaptable/flexible buildings and a mix of residential typologies and tenures will also improve resilience to changing needs as families grow, people live longer and economic conditions change, enabling residents of a range of ages, income levels and circumstances to live in the city centre location and have long-term residency in the development. Every effort will also be made to ensure that the development's digital infrastructure will be SMART and resilient to future advances and evolved landscapes of digital technology, enabling future connections and alterations. Typologies and tenures and digital infrastructure design considerations will also be progressed during detailed design stages.

13.2.2 Flood Risk Assessment

The FRA confirms that the site is located mainly within Flood Zone 3a 'High Probability' of river flooding, defined as greater than a 1 in 100 (1%) annual probability. The classification however ignored the presence of flood defences, which the Environment agency (EA) have confirmed the site benefits from such defences, specifically an embankment between the River Exe and Exeter Canal. The site also lies within an area of Groundwater Vulnerability designated 'Medium', however even with limited detailed information on groundwater flood risk it has been identified by the FRA that within much of Exeter, groundwater flooding is not a major concern and that the risk of groundwater flooding is considered to be low.

The Assessment finds that across the site, Flood Risk Vulnerability varies across 'Water Compatible', 'Less Vulnerable', and 'More Vulnerable', however it is concluded that the development, located on a brownfield site, will result in an improvement to the existing surface water drainage conditions through providing a

reduction in impermeable surface area compared to existing. Development is permitted with 'More Vulnerable' development areas only permitted subject to an Exception Test being passed.

With development being permitted, the EA has proposed the following flood risk mitigation measures which the development will follow and develop in the next design stages:

- Floor levels will be set no lower than 500mm below design flood levels for 'Less Vulnerable' land uses.
- For 'More Vulnerable' land uses (college), levels will be set 300mm above design flood level. Other more vulnerable land uses (residential) will be located at first floor and above.
- Proposed Finished Floor Levels are to be confirmed by updated hydraulic modelling following receipt of model files from the EA.
- Flood resistance/ resilience measures are to be incorporated to the building design up to design flood level to prevent water ingress, and so that buildings remain useable following flood events.
- Current flood flow conveyance routes are to be maintained, to be confirmed by updated hydraulic modelling following receipt of model files from EA.
- A safe access route is proposed to be via Foundry Lane, railway and area adjacent to the railway.
- Attenuation will be provided through podium decks, blue roofs and geocellular storage. Permeable paving will be used in areas of open space to provide water quality benefits.

13.2.3 Development Surface Water and Foul Drainage Strategy

The Outline Surface Water and Foul Drainage Strategy (SWFDS) demonstrates that the proposed Water Lane development is safe, does not increase flood risk, and does not detrimentally affect third parties.

In accordance with NPPF Planning Practice Guidance and The Building Regulations – Approved Document H (2015), surface water disposal should follow the below drainage hierarchy. The viability of each method of discharge in relation to the proposed scheme has been evaluated in the Drainage Strategy report, and a summary provided below.

- **Rainwater re-use.**
    - This will require coordination with the wider design team and is subject to detailed design later in the project.
- **Infiltration.**
    - Infiltration potential on site is considered to be too low to permit discharge of surface water to the ground.
    - Significant contamination onsite also makes surface water disposal via infiltration unsuitable, where it would be directed to a wider sub-catchment area.
- **To a surface water body.**
    - Discharge to a surface water body is also considered unsuitable, either by potentially increasing flood risk to the canal or without the access to divert flow to the River Exe.
- **To a surface water sewer, highway drain or another drainage system.**
    - Asset mapping indicates that there are a number of existing public surface water sewers within the site that likely already serve existing uses onsite, augmented by private drains.
    - This option for surface water discharges into the existing surface water sewer network is therefore the preferred option in this SWFDS.
    - A new foul sewer system is required which will connect to the existing public foul sewer network and much of the private foul drainage will require removal and replacement.
- **To a combined sewer.**

The existing site is assumed to be 95% impermeable and landscape proposals by Greenhalgh Landscape Architects indicate that the development will be approximately 90% impermeable due to increases in naturally draining landscaped areas. At this stage it has been assumed that peak discharge rates or volumes will not be reduced, however as well as the benefits from the landscape strategy, where possible the site drainage will look to utilise the following SuDS features:

- Green roofs,
- Geocellular crates,
- Blue roofs,
- Permeable paving, and
- A bioretention system.

These SuDS methods will contribute to reduced runoff and peak discharge rates, resulting in a net reduction, and the reduction in impermeability of surfaces indicate that no long term storage is required.

The water quality strategy will be developed further and finalised as part of detailed design at a later stage, however in accordance with CIRIA SuDS Manual C753, the drainage system will be designed to comply with requirements of the SuDS Management Train. The development's pollution hazard indices are shown in the Outline SWFDS Table 5.4, in accordance with Table 26.2 of the SuDS Manual.

When ignoring the benefits of pervious paving and bioretention systems, the proposed SWFDS will result in an approximately 31% reduction in peak discharge rates from the development in a 1 in 100 year storm event + 45% allowance for climate change, when compared to the existing site condition.

The proposed SWFDS has limited the total allowable discharge rate for the proposed development site of 52.6l/s, or as close as feasible to do so. This matches the pre-development existing greenfield runoff rate for a 1 in 100 year storm event, and would require a 51% reduction from the existing brownfield runoff rate in the 1 in 100 year storm event.

Further site investigations are required in order to finalise the SWFDS. Both the foul and surface water networks are subject to detailed design at a later stage. As a foul drainage connection can be made within the site boundary, it is likely the proposed strategy will be delivered as part of a S104 application and subject to technical approval by South West Water.

13.3 Assessment

Through following the principles above, as included within the FRA and SWFDS, and adaptive design considerations, the development is expected to achieve the relevant management, energy, waste and pollution aspects of BREEAM 'Excellent' and the 'Best Practice' target levels of performance under the KPI's. These will be considered further during the next stages of design and included within the Reserved Matters application(s).

14 SUSTAINABLE TRANSPORT & MOBILITY

This section describes the proposed 'Sustainable Transport and Mobility' strategy for the Water Lane development to pursue the objective to '*Promote sustainable transport and mobility options for residents, workers and visitors'*.

14.1 Key Requirements

The 'Sustainable Transport and Mobility' strategy will seek to meet national and ECC local policies as well as performance targets across the Water Lane delivery framework KPIs. These are summarised below.

Table 19 'Sustainable Transport & Mobility' planning policies

DRIVER	POLICY/STRATEGY/TARGET REQUIREMENT
The National Planning Policy Framework	Promoting sustainable transport
	Making effective use of land
ECC Adopted Core Strategy	**CS Policy CP9** Transport
	LPFR Policy T1 Sustainable Transport
	LPFR Policy T2 Accessibility of facilities and services
	LPFR Policy T3 Layout and integration
	LPFR Policy T9 Disabled access
	LPFR Policy T10 Maximum parking standards
The Exeter Plan – Outline Draft Plan	**TEP Policy S2, Principle 1** Memorable places
	TEP Policy S2, Principle 2 Outstanding performance
	TEP Policy S2, Principle 5 Active streets
	TEP Policy CE1 Net zero Exeter
	TEP Policy ST1 Sustainable movement
	TEP Policy STC2 Active and sustainable travel
	TEP Policy STC3 Active travel proposals
	TEP Policy STC4 Public transport proposals
	TEP Policy H1 Health and wellbeing
BREEAM	**Tra 01** Transport Assessment and Travel Plan
	Tra 02 Sustainable Transport Measures

Table 20 Key Performance Indicators and Targets for 'Sustainable Transport & Mobility'

KEY PERFORMANCE INDICATOR	UNITS	BEST PRACTICE TARGET VALUE
Percentage of sustainable transport mode share for residents' or workers' journeys to work (modes other than single-occupancy vehicle)	resident % mode share to work	TBC*
	worker % mode share to work	TBC*

*To be established and confirmed in the next stages

14.2 Strategy

The 'Sustainable Transport and Mobility' strategy is based on the 'Transport Assessment' (TA) and 'Framework Travel Plan' (FTP) undertaken by Stantec. The purpose of the TA is to review the local highway network, the sustainable accessibility of the proposed development and to assess the development proposals in a local transport context. The TA has informed the FTP which discusses the accessibility of the site and outlines a range of travel plan measures that will be promoted to site occupants to encourage sustainable travel patterns and ensure the 'low car' vision for the development is achieved.

The building design and landscape strategies will also be progressed such that accessibility and wayfinding for sustainable travel modes are encouraged and promoted, and usage of private cars for trips to and from the site are minimised.

As WLDMC will not be the ultimate site occupier, it is proposed to utilise a Framework Travel Plan Coordinator (TPC) to ensure that the proposed transport and 'low car' outcomes continue to be delivered from design through to operation. This role will coordinate the delivery of pre-occupation actions (for example relating to the site design), and ensure that the FTP is implemented and run appropriately in operation. This will continue until either the end of the TP period, the development is completed, or 8 years from appointment of the TPC, whichever is earliest. At this point the FTP should have become self-managing and autonomous.

Key sustainability measures and strategies from the TA and FTP reports are summarised below.

14.2.1 Existing Sustainable Transport Provision

The site has good levels of accessibility to pedestrian facilities and cycle routes, which vary in quality, and access to good bus links to the city centre, Park & Ride/Change facilities, key employment sites and other destinations. Marsh Barton railway station is also approximately 700 metres south of the proposed site and provides regular rail services to key regional destinations.

Furthermore, a range of key facilities and services, such as employment, retail, leisure, schools and healthcare are readily accessible from the site. It is therefore considered that the location of the site is consistent with national and local policy objectives. An FTP has been written for the site which will encourage the targeted 'low car' outcomes through use of active travel and use local public transport services. This is anticipated to reduce the overall travel demands of the site, particularly those trips by single occupancy vehicles.

14.2.2 Future Development Impacts

The TA assessed the impact that the proposed development will have on the local highway network. Total traffic generation was determined following the 'low car' parking led modal split and concluded that the proposed development is not forecast to generate more traffic than the site currently has the potential to. The impact of the development-generated traffic on the surrounding area has therefore been shown to be of a

negligible impact on queuing and delay and the development proposal is considered to pass the four transport criteria set out in the NPPF.

14.2.3 Framework Travel Plan

The FTP (and the resultant Final Travel Plan which will be developed for the proposals) is based upon the achievement of the following broad aims and objectives to achieve the 'low car' vision for the site:

- Address employee's needs for access to the site, particularly during peak hour periods.
- Reduce the need for unnecessary travel to and from the development and assist those who need to travel to do so by sustainable modes.
- Look to realise and maintain a 'low car' vision for the site and seek to reduce any reliance on the private car, with strategy focused on measures to encourage mode shift away from single occupancy private car trips.
- Build upon good urban design principles that maximise the permeability of the development for promoting alternative sustainable modes of travel such as walking, cycling, public transport use and car sharing.
- Promote healthy lifestyles and sustainable, vibrant local communities.

The FTP combines a range of 'hard' such as site design and 'soft' such as raising awareness measures to integrate into the design, marketing and occupation of the site. The table below includes a summary of these measures to encourage and enable: walking to, from and through the site; an increase in proportion of cycle trips; proportion of trips to the site by public transport which would primarily be via bus, and; a 'low car' development, reducing the need to travel by car and distances needed to travel in general.

Table 21 Measures to Encourage Active and Sustainable Travel

Measure	Summary
Cycle Parking	1. Provide cycle parking in line with ECC standards set out in their Sustainable Transport SPD. 2. For education uses, provide 240 cycle parking spaces for use by both staff and students. 3. Provide secure and lockable storage and cycle stores.
Proposed Public Transport Access	1. Phase 1 (upon first occupation of the development): Use existing bus stops located north of the Water Lane (South)/Tan Lane crossroad junction or provide new interim stops on Tan Lane. 2. Phase 2 (upon a set number of occupations is reached within the site): Provide bus stops within the site boundary (further detail provided in the FTP, section 5.3). 3. Phase 3 (ultimate strategy aspired to): Provide bus stops in the site boundary and Northern Regeneration Zone, improving access to this zone (further detail provided in the FTP, section 5.3). 4. All streets intended to serve a bus will be 6.5 metres wide to readily cater for them. 5. The nearest Railway station is Marsh Barton, approximately 700 metres from the south of the site and accessible by walking, cycling and the Green bus route.
Proposed Mobility and Delivery Hub	1. Provide a Mobility and Delivery Hub at the heart of the development site in building F2 at ground floor level, consisting of 15 electric cars and up to 100 e-bikes on a phased basis initially, but with the ability for this to rise. 2. Provide car club vehicles with dedicated charging bays, bookable in advance using smartphone technology within an hour or weeks/months in advance, and available for under an hour or up to a number of days.

	3. Provide membership opportunities that will cover all costs including insurance, charging, tax, servicing, cleaning costs and a 24/7 customer service line. 4. Explore the provision of a home mobility service package to residents, where each household pays a monthly/yearly subscription fee to access the shared mobility provision onsite. 5. Provide on-demand cycle hire services and short-term electric cycle hire, where bikes can be hired and returned to any location and are hired per hour. 6. Provide a delivery hub for small and medium ambient goods also within building F2, for parcel deliveries with a dedicated route and parking area for delivery vans, enabling delivery vans to make trips to fewer locations and for deliveries to be made first time, not requiring a return vehicle trip.
Car Parking Strategy	1. Provide up to 276 shared undercroft off-street parking bays across the site in three central locations (buildings F2, G2 and H1). This excludes mobility hub spaces, disabled and EV charging bays, and the 5 drop-off/ disabled bays intended to be provided for the student accommodation. 2. Distribute residential parking spaces relatively evenly between phases/ buildings and offer these on a lease basis to support the 'low car' concept and provide flexibility as to their use in the future. 3. Make the shared parking provision for general visitors to the site a 'pay and display' facility, to encourage use of sustainable transport modes. 4. EV car charging bays proposed to be located on King Street will provide rapid chargers, able to charge and EV to 80% in circa 20 minutes based on current technology. 5. Provide circa 12 parking spaces to the rear of building M1, which are a reprovision of the continued use of existing spaces utilised by a local housing association. 6. Implement a Residential Parking Zone (RPZ) for existing residents along Cotfield Street so that only they can park in this zone.
Travel Plan Website	1. Provide high quality information concisely via a Travel Plan website to drive behaviour change, which will outline sustainable transport options and provide an interactive resource and a 'one stop shop' for all travelling to and from the site. Further detail is provided in the FTP, section 5.4.
Sales Team Involvement	1. Ensure the Travel Plan has a significant presence within sales suite(s) of the development, such as a display outlining travel arrangements and sustainable travel options for the site. 2. Train sales staff to promote the Travel Plan as an asset and significant selling point of the development. 3. Provide a sustainable travel leaflet in response to sales enquiries.
Promotion of Walking and Cycling	1. Provide cycle parking in line with ECC standards (as outlined previously). 2. Via the Travel Plan website, provide information on walking and cycling infrastructure across the development and promote local and national travel events such as 'cycle to work week'. 3. Negotiate discounts and offers for residents at local cycle stores and promote the e-bike rental service present onsite. 4. The TPC will set up and support walking and cycling groups that will enable social connectivity and incentivise sustainable travel, also advertised through the Travel Plan website. 5. Run an annual Travel Plan Event Day with a dedicated budget, which will raise public awareness of measures and incentives available and offer personalised travel planning advice.
Steering Group	1. Established and Chaired by the TPC and comprised of relevant interested parties, such as Travel Plan Representatives (TPRs). The mobility hub and bus operator(s), resident groups, council officers, etc.

Provision of Travel Information Boards	1. Provide several Travel Plan noticeboards across the site at appropriate locations, which will provide walking and cycling maps for the area, public transport and mobility hub information, etc.
Green Travel Voucher and Bus Taster Tickets	1. Provide a Green Travel Voucher application form to the first tenure of each dwelling, redeemable against evidenced expenditure on walking/ cycling equipment, bus tickets, mobility hub use or a mobility service subscription. 2. Contact local bus service operators to negotiate discounts or secure free bus taster tickets for the site's residents, employees and students.
Car Sharing	1. The TPC will make contact with Car Share Devon to establish whether a site-specific section of their website could be created. This website will be advertised on the Travel Plan website and across the development site. 2. Potentially dedicate car sharing spaces within the staff car park at the proposed further education college faculty.
Car Club and E-Bike Rental Promotion	1. Promote a car club and e-bike rental service to future residents, employees and students of the site as a key selling point of the development and provide details via the Travel Plan website. 2. Potentially provide household vouchers to join and initial free usage periods, and onsite promotions, training and bespoke leaflets.

A summary of the main FTP measures can be seen in the table below which summarises the details of the timescales associated with the implementation of the measures and monitoring of the FTP, and the person/ organisation responsible for the funding and implementation of these measures and monitoring activities.

Table 22 Travel Plan Summary of Measures and Actions

Measures / Action	Target Date	Responsibility
Appoint TPC	Six months prior to the occupation of the first dwellings site	Developer
Deliver pedestrian/ cycleways and links across the development	Delivered as part of site construction	Developer
Deliver cycle parking and proposed car parking strategy	Delivered as part of site construction	Developer
Deliver proposed public transport access	In 3 phases as outlined in Table 21	Developer
Deliver proposed mobility and delivery hub	Delivered as part of site construction	Developer
Produce marketing and publicity campaign and materials	Prior to marketing of the site	TPC
Prepare public transport / walking/ cycling information for sales suite(s), residents, and College and Occupier TPRs	Prior to occupation in leaflets and via the Travel Plan website	TPC
Coordinate delivery of household Travel Plan leaflets	Upon occupation of the site	TPC
Ensure all transport information up to date and that this is passed to College and Occupier TPRs	Prior to occupation of the site and during, with regular updates	TPC

Liaise with public transport operators for free bus 'taster tickets'	Prior to occupation of the site	TPC
Liaise with Car Club and e-bike operator(s), utilising their marketing and promotional services	Prior to occupation of the site and during, ongoing	TPC
Set up the Annual TP Event Day	During site occupation, annually	TPC
Submit the first iteration and updated versions of the Full Residential TP	Update annually within 3 months of surveys being completed, to set mode targets for the coming year to progress towards the Final Year Targets included in the FTP	TPC
Conduct Residential Baseline Travel Surveys (Questionnaire)	Within first neutral month following 25% of residential element being occupied	TPC
Conduct Annual Residential Monitoring Surveys (Questionnaire)	In the same month as the first survey, annually	TPC

14.3 Assessment

The TA confirms that the site is accessible by a range of travel modes, and that a range of services and facilities are readily accessible from the site. The TA concludes that the proposed development is reflective of current and emerging policies and guidance and can be accommodated without materially exceeding the current permissions for the extant use of the site. The FTP sets out measures to encourage active and sustainable travel patterns and achieve the 'low car' vision for the site. Through following the measures above as included within the TA and FTP, the development is expected to achieve the relevant transport aspects of BREEAM 'Excellent' and the 'Best Practice' target levels of performance under the KPI's. These will be considered further and intended to be under a Full Residential TP, Full College TP and Occupier TPs/TP Statements during the next stages of design and included within the Reserved Matters application(s), as well as a Construction Traffic Management Plan and Construction Worker TP proposed to manage the impacts of construction related traffic.

15 LOCAL ECONOMIC GROWTH

This section describes the proposed 'Local Economic Growth' strategy for the Water Lane development to pursue the objective to '*Deliver local economic growth through local investment and job creation, during both construction and operation'.*

15.1 Key Requirements

The 'Local Economic Growth' strategy will seek to meet national and ECC local policies as well as performance targets across the Water Lane delivery framework KPIs. These are summarised below.

Table 23 'Local Economic Growth' planning policies

DRIVER	POLICY/STRATEGY/TARGET REQUIREMENT
The National Planning Policy Framework	Building a strong, competitive economy.
	Achieving sustainable development.
ECC Adopted Core Strategy	**CS Policy CP2** Employment
	CS Policy CP7 Affordable Housing
	CS Policy CP13 Decentralised Energy Network
	CS Policy CP15 Sustainable Construction
The Exeter Plan – Outline Draft Plan	**TEP Policy S2, Principle 2** Outstanding performance
	TEP Policy S2, Principle 3 Welcoming neighbourhoods
	TEP Policy S2, Principle 4 Liveable buildings
	TEP Policy CE1 Net zero Exeter
	TEP Policy CE2 Local Energy Networks
	TEP Policy EJ3 New forms of employment provision
	TEP Policy EJ4 Access to jobs and skills

Table 24 Key Performance Indicators and Targets for 'Local Economic Growth'

KEY PERFORMANCE INDICATOR	UNITS	BEST PRACTICE TARGET VALUE
Gross Value Added per economically active head of population	£ k per head	TBC*
Provide choice and range of properties for lower income groups	%	>30*

*To be agreed in the next stages

15.2 Strategy

The 'Local Economic Growth' strategy is based on the PDAS developed to support the outline planning application, which aims to enable development at Water Lane that delivers economic benefits for local

communities and Exeter city more widely, is sustainably operated, maximises the value of available resources whilst respecting the character of the existing community and is a viable scheme for the developer. Construction of the Water Lane development will boost GVA and the jobs offer through the construction and lifetime of the development. This includes utilisation of local skills through the recruitment of local people, both in the short-term, as well as ensuring that these are either retained, or through directing people to longer-term employment opportunities, covered in section 11 of this Sustainability Statement.

The Water Lane development will be a key generator of local jobs and investment both in construction and operation, and will deliver a range of economics benefits throughout the development lifecycle for the local community and region. These include:

- Employment and labour generation during the construction phase and site lifetime,
- Gross Value Added (GVA) via the construction phase,
- Operational employment,
- Generation of economically active local residents,
- GVA generated per annum by resident population in employment,
- Council Tax,
- Business Rates,
- Reduction in Fuel poverty/ household energy costs through the energy strategy,
- Where possible, local materials and supply chains will be used to maximise the local economic benefit.

15.3 Assessment

The proposed Water Lane development will deliver on the allocation made in the ECC Adopted Core Strategy 2012-2026 (Policy CP17) and The Exeter Plan (Outline Draft Plan) (Policy H2) and aims to meet the needs identified in these policies. This site is allocated as a mixed-use redevelopment site in both local plan documents and helps to deliver employment growth and sustainable residential development on underutilised brownfield land. The local economic growth strategy and measures for the development will be explored further during the next stages alongside design development, and included within the Reserved Matters application(s).

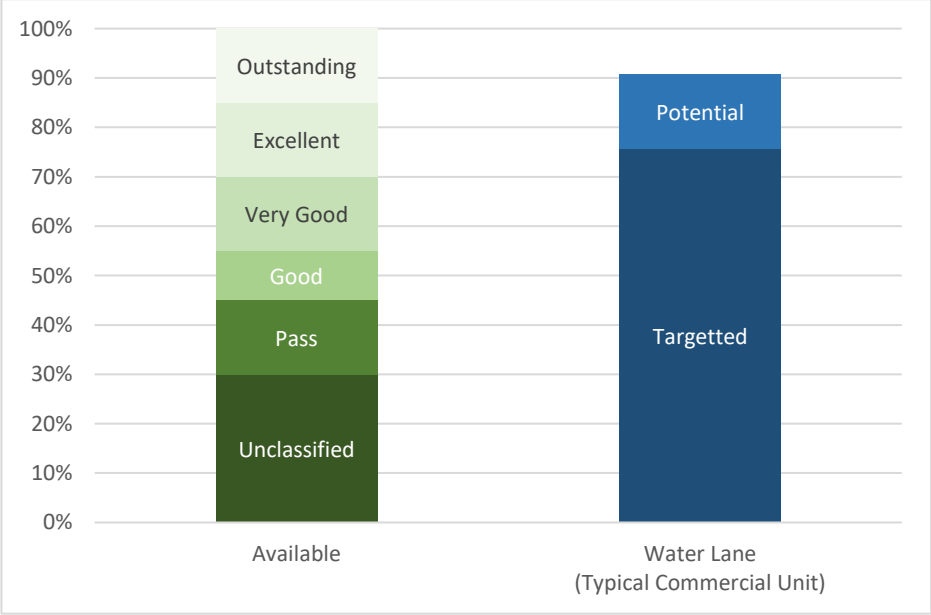
16 BREEAM

In response to the ECC Core Strategy 2006-2026 (adopted February 2012) with specific reference to Policy CP15 'Sustainable Construction' requirement for '*all non-domestic development will be required to achieve BREEAM 'Very Good' standards increasing to 'Excellent' standards from 2013*', an initial BREEAM pre-assessment has been completed for the Water Lane development.

The site is dedicated to residential and commercial development (Use Classes C3, Suis Generis, C1, E, & F), therefore it is proposed that these buildings would be certified under the BREEAM UK New Construction 2018 V6 tool (Commercial/Other/Public/Multi-residential Accommodation). Individual assessments will be required for each use type across the development, which will be confirmed during the next design stages. As the buildings are being submitted in outline as part of the outline planning application (OPA), a large proportion of the information and evidence required for many of the credits has yet to be developed. It is therefore not possible to enable full Design Stage assessments for each use type to be carried out. An initial BREEAM pre-assessment has therefore been completed by Sol Environment based on the strategies proposed by the design team for a typical commercial unit, complimented with past project experience and knowledge of BREEAM by Sol Environment, 3ADAPT and wider project team.

This BREEAM pre-assessment has identified a set of "Targeted" scores, which will result in a BREEAM 'Excellent' rating being achieved for the proposed Water Lane development as a whole. A number of "Potential" scores have also been identified which require further: investigation, analysis, design development or specialist studies to support their achievement during the next design stages. The "Targeted" score incorporates all minimum standards required to achieve a BREEAM 'Excellent' rating including those required under Ene 01 as referenced in section 6 of this Sustainability Statement.

CREDIT CLASSIFICATION	SCORE	RATING
Targeted	75.68%	Excellent
Targeted & Potential	90.79%	Outstanding



This outline BREEAM pre-assessment highlights an approach and pathway for the Water Lane development to achieve an 'Excellent' BREEAM rating or better, subject to design development and further analysis in the next stages, and meeting the ECC Core Strategy Policy CP15 requirements. The BREEAM strategy will be further

developed during the next design stages and confirmed as part of the reserved matters application(s). The initial BREEAM pre-assessment report and tracker produced by Sol Environment can be found in the Appendix.

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